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09/680,107	10/04/2000	Glenn Reid	004860.P2476	8211
45217 7590 10/30/2009 APPLE INC./BSTZ BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP 1279 OAKMEAD PARKWAY SUNNYVALE, CA 94085-4040				
EXAMINER WANG, JIN CHENG				
ART UNIT		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

09/680,107

**Applicant(s)**

REID, GLENN

**Examiner**

JIN-CHENG WANG

**Art Unit**

2628

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27, 29, 30, 32, 33, 35, 36 and 38-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27, 29-30, 32-33, 35-36 and 38-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notices of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/23/2009 has been entered. Claims 1, 5, 8-9, 12, 15-16, 21-22, 25, 27, 29, 30, 32-33, 35, 36, and 38 have been amended. Claims 28, 31, 34 and 37 have been canceled. Claims 1-27, 29-30, 32-33, 35-36 and 38-40 are pending in the present application.

### ***Response to Arguments***

Applicant's arguments, filed September 23, 2009, with respect to the amended claim 1 and similar claims have been considered but are moot in view of the ground of rejection in the present Office Action based on the Adobe After Effect Version 4.0, July 15, 1999, <http://proquest.safaribooksonline.com/0201658917>, (hereinafter After-Effect).

As addressed in the present Office Action, the claim 1 is fulfilled by After-Effect in view of Herbstman U.S. Patent No. 5,919,249 (hereinafter Herbstman).

In Remarks, Applicant misinterpreted Herbstman teaching at column 6 with regards to "the rendering subprocess". The rendering subprocess is column 6 refers to rendering subprocess of rendering a modification to the master frame and is clearly different from the rendering process of rendering plural modifications to the output frames on the different output devices.

Herbstman teaches the render process may be accomplished in parallel. Herbstman teaches at column 6, lines 42-41 that alternatively the render process may be accomplished in parallel in a system which operates more than one processor at a time. Herbstman teaches that the master frames are rendered in a first format or in a second format in parallel as disclosed in column 6, lines 20-67 in accordance with the output format definitions including the proxy use option and the effects/resolutions rendering options for each output format and therefore the proxy is rendered in one format while another frame of a second format (e.g., full resolution format) is rendered based on the same master frame (Fig. 2). Therefore, while continuing adding the edit feature to the first master frame in a sequence of frames, the first proxy is rendered in the first output device in parallel with the second output device (Fig. 2). Herbstman thus teaches creating a proxy of the master frame in a sequence of frames at the first output device while rendering modifications to the frame in parallel in another processor in the second output device. Herbstman teaches the proxy of the frame is created in the first output device in parallel with rendering all modifications to the frame at the second output device. The rendering of the proxy of the frame is performed in a first output device in parallel with the rendering of the modifications of the frame in the second output device (Fig. 2).

Herbstman teaches a method for manipulating a time based stream of information in a processing system (Fig. 1), the method comprising:

determining whether an original frame of the time based stream of information requires one or more modifications (*the user selects the render settings of Fig. 1 and column 2, lines 35-67 and column 3, lines 5-15, once the formatted frame is produced, the system checks to determine if other output formats have been requested. If not, the system checks to determine if*

*more frames need to be rendered; column 3, lines 30-50 certain ones of the user configurable render settings may be designated by the user through user interface. At column 4, lines 10-40, the cited reference teaches that proxy use determines whether or not proxies will be used when rendering. Proxies are representations of footage items in outline form and proxies allow for quicker rendering of compositions by eliminating the need to manipulate the pixel data for a piece of footage. Effects determines what effects are enabled for the rendered composition, for example, animation effects and plug-in effects can be disabled to speed up the rendering process. Each effect in a layer can be enabled independently) that include adding an edit feature to the original frame (the user selects the render settings of Fig. 1 and column 2, lines 35-67 and column 3, lines 5-15, once the formatted frame is produced, the system checks to determine if other output formats have been requested. If not, the system checks to determine if more frames need to be rendered; column 3, lines 30-50 certain ones of the user configurable render settings may be designated by the user through user interface), to create revised frame and storing the one or more modifications in a file for the revised frame (the user selects the render settings of Fig. 1 and column 2, lines 35-67 and column 3, lines 5-15, once the formatted frame is produced, the system checks to determine if other output formats have been requested. If not, the system checks to determine if more frames need to be rendered; column 3, lines 30-50 certain ones of the user configurable render settings may be designated by the user through user interface. Herbstman teaches at column 6, lines 42-41 that alternatively the render process may be accomplished in parallel in a system which operates more than one processor at a time. Herbstman teaches that the master frames are rendered in a first format or in a second format in parallel as disclosed in column 6, lines 20-67 in accordance with the output format definitions*

*including the proxy use option and the effects/resolutions rendering options for each output format and therefore the proxy is rendered in one format while another frame of a second format (e.g., full resolution format) is rendered based on the same master frame (Fig. 2). Therefore, while continuing adding the edit feature to the first master frame, the first proxy is rendered in the first output device in parallel with the second output device); if it is determined that the original frame requires the one or more modifications, automatically creating a proxy of the revised frame while rendering the one or more modifications to the original frame (Herbstman teaches at column 6, lines 42-41 that alternatively the render process may be accomplished in parallel in a system which operates more than one processor at a time. Herbstman teaches that the master frames are rendered in a first format or in a second format in parallel as disclosed in column 6, lines 20-67 in accordance with the output format definitions including the proxy use option and the effects/resolutions rendering options for each output format and therefore the proxy is rendered in one format while another frame of a second format (e.g., full resolution format) is rendered based on the same master frame (Fig. 2). Therefore, while continuing adding the edit feature to the first master frame, the first proxy is rendered in the first output device in parallel with the second output device.*

*The master frames are rendered in a first format as a proxy frame or in a second format in parallel as disclosed in column 6, lines 20-67 in accordance with the output format definitions including the proxy use option and the effects/resolutions rendering options for each output format and therefore the proxy is rendered in one format while another frame of a second format is rendered in parallel based on the same master frame. While continuing adding the edit feature*

*to the first master frame, the first proxy is rendered in parallel and is created in the display and saved in the memory.*

*The user selects the render settings of Fig. 1 and column 2, lines 35-67 and column 3, lines 5-15, once the formatted frame is produced, the system checks to determine if other output formats have been requested. If not, the system checks to determine if more frames need to be rendered; column 3, lines 30-50 certain ones of the user configurable render settings may be designated by the user through user interface), the proxy including a simulation of the one or more modifications (column 4, lines 10-40, proxy use determines whether proxies will be used when rendering. Proxies are representations of footage items in outline form and proxies allow for quicker rendering of compositions by eliminating the need to manipulate the pixel data for a piece of footage. Effects determines what effects are enabled for the rendered composition, for example, animation effects and plug-in effects can be disabled to speed up the rendering process. Each effect in a layer can be enabled independently), that include the edit feature to the original frame (column 4, lines 10-40, proxy use determines whether proxies will be used when rendering. Proxies are representations of footage items in outline form and proxies allow for quicker rendering of compositions by eliminating the need to manipulate the pixel data for a piece of footage. Effects determines what effects are enabled for the rendered composition, for example, animation effects and plug-in effects can be disabled to speed up the rendering process. Each effect in a layer can be enabled independently); sending the proxy to a display device; displaying, by the display device, the proxy of the revised frame during the rendering the modifications to the original frame (e.g., *Herbstman teaches at column 6, lines 42-41 that alternatively the render process may be accomplished in parallel in a system which operates**

*more than one processor at a time. Herbstman teaches that the master frames are rendered in a first format or in a second format in parallel as disclosed in column 6, lines 20-67 in accordance with the output format definitions including the proxy use option and the effects/resolutions rendering options for each output format and therefore the proxy is rendered in one format while another frame of a second format (e.g., full resolution format) is rendered based on the same master frame (Fig. 2). Therefore, while continuing adding the edit feature to the first master frame, the first proxy is rendered in the first output device in parallel with the second output device.*

*The master frames are rendered in a first format as a proxy frame or in a second format in parallel as disclosed in column 6, lines 20-67 in accordance with the output format definitions including the proxy use option and the effects/resolutions rendering options for each output format and therefore the proxy is rendered in one format while another frame of a second format is rendered in parallel based on the same master frame. While continuing adding the edit feature to the first master frame, the first proxy is rendered in parallel and is created in the display and saved in the memory.*

*The frames are rendered in parallel as disclosed in column 6, lines 20-67 in accordance with each output format definitions including the proxy use option and the effects/resolutions rendering options for each output format and therefore the proxy is rendered in one format while another frame of a second format is rendered based on the same master frame) and*

*if it is determined that the original frame does not require the modification, displaying the original frame of the time based stream of information (e.g., at column 4, lines 10-40, Herbstman teaches that the proxy use determines whether or not proxies will be used when rendering.*



*Effects option determines what effects are enabled for the rendered composition, for example, animation effects and plug-in effects can be disabled to speed up the rendering process. Each effect in a layer can be enabled independently. The frames are rendered in parallel as disclosed in column 6, lines 20-67 in accordance with each output format definitions including the proxy use option and the effects/resolutions rendering options for each output format and therefore the original frame of a second format is rendered. The master frames are rendered in a first format as disclosed in column 6, lines 20-67 in accordance with the output format definitions including the proxy use option and the effects/resolutions rendering options for each output format.*

*The original master frames can be rendered as disclosed in column 6, lines 20-67 when the proxy use option and the effects/resolutions rendering options are disabled for each output format and therefore the original master frame is rendered when the use proxy option and effects option are disabled).*

Applicant argues in essence with respect to the claim 1 and similar claims the claim limitation of “simultaneously with rendering” within the claim limitation of “automatically creating a proxy, which is a second representation of the presentation simultaneously with the rendering of the modifications of a first presentation of the presentation”. The claim 1 has a broad recitation of “rendering of the modifications of the first representation”. Although simultaneously with rendering is recited in the creating step and displaying the proxy is recited in the displaying step, this does not necessarily mean that the proxy is simultaneously displayed with a first representation of the presentation. Nothing is recited in the claim as to simultaneously displaying the first representation of the presentation and the second representation of the

presentation. For example, simultaneously rendering into a memory device does not mean simultaneously displaying on a display device.

In a non-limiting example, Adobe After-Effect teaches rendering in the same manner set forth in the claim, but in a context more specifically disclosed than Applicant's recitation of rendering because in Adobe, the rendering is taught together with the image frames. From After-Effect, rendering the image frames also means displaying the image frames when the rendering is associated with the image frames. However, in the context of the claim 1, no image frames has been recited together with the rendering. Instead, the broad recitation of rendering of the modifications of the first representation (into a memory device) has been set forth in the claim 1, as opposed to the rendering of the image frames. Clearly, the rendering of the modifications of the first representation in the context of the claim 1 is broad than the rendering of the image frames taught in Adobe.

Adobe After Effects teaches in Page 36 and 41 providing the plug-ins or effects to be added to a movie to produce modifications of an original movie rendered as lower-resolution image frames or proxies of the original movie.

In Remarks at Page 15, Applicant cited a passage in Adobe After Effects at Page 12, lines 1-4 while continuing to ignore the overall teaching in Adobe After Effects. Adobe ActHIR.mov is used as an actual composition rendered in a memory at the time of rendering the proxy of the file on the display. Adobe AfterEffects teaches rendering the actual composition in a memory while rendering the proxy on a display. The proxy is only used for display purposes at the time of rendering the actual composition. Applicant ignored Adobe AfterEffects teaching that the effects and properties applied to the proxies or the lower-resolution counterparts

are also applied to the actual footage. Adobe AfterEffects teaches automatically creating a proxy of the movie frames (actual movie frames) while rendering effects and properties to the actual movie footage (actual movie frames). Adobe teaches displaying the proxy of the actual movie footage frames during the rendering of the effects and properties to the actual movie footage in a memory.

Adobe After-Effect teaches at Pages 9-12 that when a user use the ActHiR.mov file in a composition, After Effects will use the proxy for display. This passage is clearly understood to meet the claimed displaying the proxy of the frame during the rendering the modifications to the frame.

In Adobe After-Effect, with respect to the rendering/storing of the effects and properties, the effects and properties applied to the proxies or the lower-resolution counterparts are also applied to the actual footage stored in ActHiR.mov (simultaneously rendering/produced) wherein the effects and properties are at least rendered to a memory or a file in order to display the movie ActHiR.mov with the effects and properties applied when the user chooses so. During the rendering and displaying of effects and properties to the proxies or the low-resolution counterparts, the same effects and properties can be rendered/stored to the actual movie footage and therefore the Adobe system stores/records/renderers the effects and properties so that the same effects and properties can be applied to the actual movie footage. Moreover, with respect to the simultaneously rendering/displaying of the actual movie footage, one of the ordinary skill in the art understands from After Effects that simultaneously rendering/displaying the effects and properties to the proxy as well as the actual movie footage can be achieved with two computers loaded with the same footage movie wherein the user has the option to allow one

computer to simulate the rendering/displaying of the effects and properties to the proxy and the user has the option to allow the other computer to simultaneously simulate the rendering/displaying of the effects and properties to the actual movie footage.

After-Effects thus fulfill the claimed simultaneously rendering when the effects and properties are simultaneously applied/rendered into the lower-resolution counterparts and the actual footage.

It is clearly understood that the sequence of frames in ActHiR.mov is simultaneously produced with the proxy movie being displayed in a composition window. However, Applicant argues that ActHiR.mov is not displayed simultaneously with the proxy movie. This argument is irrelevant because the claim 1 does not specifically require displaying simultaneously the first representation of the presentation and the second representation of the presentation. Moreover, Applicant may argue that Adobe's ActHiR.mov is produced after the effects and properties are applied to the proxies. However, this argument is based unreasonable interpretation of the Adobe After-Effect's teaching. Since ActHiR.mov has a series of frames, effects and properties are applied to the proxies in real time during the displaying of the proxy in a composition window, the effects and properties cannot be applied to the sequence of frames ActHiR.mov afterwards. The proxy movie footage is extracted based on the actual footage or the revised footage, the presentation of the proxy movie footage is a presentation of the actual footage while editing is visualized on the displayed while actually being performed on the actual movie footage wherein the effects and properties are applied to the actual footage to create the revised footage. The effects and properties have to be applied to the sequence of frames ActHiR.mov simultaneously

during the rendering of the effects and properties to the proxy image frames in a composition window.

In a non-limiting example, Adobe After-Effect teaches at Pages 9-12 that, for the many frames of the video editing, with respect to the rendering/storing of the effects and properties, the effects and properties applied to the proxies or the lower-resolution counterparts are simultaneously applied to the actual footage stored in ActHiR.mov wherein the effects and properties are rendered to a memory or a file called ActHiR.mov during the displaying of the proxies or the low-resolution counterparts. Moreover, with respect to the simultaneously rendering/displaying of the actual movie footage, one of the ordinary skill in the art understands from After Effects that simultaneously rendering/displaying the effects and properties to the proxy as well as the actual movie footage can be achieved with two computers loaded with the same footage movie wherein the user has the option to allow one computer to simulate the rendering/displaying of the effects and properties to the proxy and the user has the option to allow the other computer to simultaneously simulate the rendering/displaying of the effects and properties to the actual movie footage.

In Adobe, the proxy is displayed during the rendering of the effects and properties to the actual movie footage into a memory of a file stored as ActHiR.mov file. The user concurrently determines whether to view the proxy with the rendered effects or the actual movie footage with the rendered effects. During the rendering of the effects, the proxy movie with the rendered effects is viewed while the effects are also rendered to ActHiR.mov. The effects are being applied or have been applied to the sequence of frames of the movie in the process of rendering and/or in the processing of presentation. When the actual movie footage with the rendered effects

is toggled to be viewed in a viewing window, the proxy with the rendered effects is not viewed concurrently after effects are rendered.

The ActHiR.mov meets the claim limitation of the first representation of the presentation which can be displayed when the user chooses to do so. The proxies or the lower-resolution counterparts meet the claim limitation of "proxy" or a second representation of the presentation. That the effects and properties applied to the proxies or the lower-resolution counterparts are applied to the actual footage stored in ActHiR.mov means "simultaneously rendering" of the first representation of the presentation-----ActHiR.mov and the second representation of the presentation----the proxies. The effects and properties are rendered to a memory or a file called ActHiR.mov simultaneously with the displaying of the proxies or the low-resolution counterparts. After-Effect thus teaches storing and rendering the modifications (effects and properties) in a file ActHiR.mov for the presentation of the effects/properties as proxies and for the presentation of the movie represented by the proxy sequence of frames while rendering the effects and properties on the application window with a sequence of the proxy image frames. The proxy sequence of frames representing the movie footage can be presented on the application window upon the user's selection/determination. The original movie footage can be revised by adding effects to the original movie footage to provide revised movie footage while (simultaneously) the effects are applied to the proxy frames as well as the actual footage. Since the proxy movie footage is extracted based on the actual footage or the revised footage, the presentation of the proxy movie footage is also a presentation of the actual footage while editing is visualized on the displayed while actually being performed on the actual movie footage wherein the effects and properties are applied to the actual footage to create the revised footage.

For this reason, After-Effect teaches a first representation of the presentation of a time-based stream of information---the actual footage---as first represented by actual footage movie and then second represented by the proxy movie footage at a resolution and frame rate set by the user.

The claimed simulation of the modifications corresponds to the simulation of the effects and properties on the proxy frames on a display device at the user selected resolution and frame rate while the new effects are added to the proxy frames and the simulation of the modifications is later stored as a proxy footage file ActPrx.mov or FX\_HiR.mov----representing the proxy frames, which is NOT stored in the claimed "file" corresponding to the revised movie footage file---ActHiR.mov. Thus, creating the proxy movie ActPrx.mov or FX\_HiR.mov includes simulating the adding of the effects to the presentation.

Since the simulation of the modifications is related to effects being added to the proxy---ActPrx.mov or FX\_HiR.mov---on a display, as opposed to adding the edit features to the original footage to create a revised movie footage---ActHiR.mov----which is resident on a storage. When the effects being added to the movie footage---ActHiR.mov---stored on a storage device, simulation occurs within the storage file, ActHiR.mov. The simulation of modifications refers to the simulation of the proxy footage when the effects are added to the proxy frames on a display as the proxy footage is created during the rendering.

The original footage can be rendered at lower-resolution proxy on a display during the rendering. See Pages 7-11, wherein the proxy representing Photo-JPEG images are rendered at quarter resolution and a frame rate of 24 fps and the edit effects such as Cineon Converter effects are applied to produce the proxy during the rendering of a plurality of time-based streams such as the movie at 24 fps. See also Page 22, proxy is created during the rendering on a display. See

also Page 30-31 wherein a variety of effects are applied to the lower-resolution proxies/counterparts of the original image frames of the movie project.

Importantly, Adobe After-Effect teaches at Pages 9-12 that the effects and properties applied to the proxies or the lower-resolution counterparts are applied to the actual footage stored in ActHiR.mov----wherein the movie has been revised by adding effects to the original footage. Although the proxy footage is also stored in the file folder as a proxy file, it is different from the revised movie footage----ActHiR.mov. See Page 11 wherein ActPrx.mov is a proxy movie of ActHiR.mov; see Pages 22-31 for the lower-resolution counterparts/proxies of the original movie footage displayed as a representation of the original movie.

In Remarks, Applicant misinterpreted Herbstman teaching at column 6 with regards to “the rendering subprocess”. The rendering subprocess is column 6 refers to rendering subprocess of rendering a modification to the master frame and is clearly different from the rendering process of rendering plural modifications to the output frames on the different output devices. Herbstman teaches the render process may be accomplished in parallel. Herbstman teaches at column 6, lines 42-41 that alternatively the render process may be accomplished in parallel in a system which operates more than one processor at a time. Herbstman teaches that the master frames are rendered in a first format or in a second format in parallel as disclosed in column 6, lines 20-67 in accordance with the output format definitions including the proxy use option and the effects/resolutions rendering options for each output format and therefore the proxy is rendered in one format while another frame of a second format (e.g., full resolution format) is rendered based on the same master frame (Fig. 2). Therefore, while continuing adding the edit feature to the first master frame, the first proxy is rendered in the first output device in parallel



with the second output device (Fig. 2). Herbstman thus teaches creating a proxy of the master frame at the first output device while rendering modifications to the frame in parallel in another processor in the second output device. Herbstman teaches the proxy of the frame is created in the first output device in parallel while rendering all modifications to the frame at the second output device. The rendering of the proxy of the frame is performed in a first output device in parallel with the rendering of the modifications of the frame in the second output device (Fig. 2).

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-7 and 27, 29 and 39 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

#### **Re Claims 1-7, 27, 29 and 39:**

Claim 1 is rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent<sup>1</sup> and recent Federal Circuit decisions<sup>2</sup> indicate that a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps

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<sup>1</sup> *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

<sup>2</sup> *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. The claim 1, for example, recites steps merely in the form of instructions or software elements as evidenced in the claims 21 and 33. These claims do not claim a physical transformation or a specific machine in the method steps. The steps which include instructions are merely descriptive material without reaching a final result as being useful, concrete and tangible. *Comiskey*, 499 F.3d at 1380 (citing *In re Grams*, 888 F.2d 835, 839-840) (Fed. Cir. 1989). *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008). *In re Abele and Marshall*, 214 USPQ 682 (C.C.P.A. 1982). *Ex parte Halligan*, 89 USPQ2d 1355, U.S. Patent and Trademark Office Appeal No. 2008-1588. *Ex parte Jakobsson*, 84 USPQ2d 1511, U.S. Patent and Trademark Office Appeal No. 2006-2107, Decided April 16, 2007. *Ex parte Cornea-Hasegan*, 89 USPQ2d 1557 (Bd. Pat. App. & Int., 2009). *Ex parte Langemyr*, 89 USPQ2d 1988, U.S. Patent and Trademark Office Appeal No. 2008-1495.

The claims 2-7, 27, 29 and 39 are subject to the same rationale of rejection set forth in the claim 1.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 1-27, 29-30, 32-33, 35-36 and 38-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the modification" in line 15 of the claim. There is insufficient antecedent basis for this limitation in the claim.

The claims 2-7 and 39 are rejected due to their dependency on the claim 1.

Claim 8 recites the limitation "the modification" in line 19 of the claim. There is insufficient antecedent basis for this limitation in the claim.

The claims 9-14 and 40 are rejected due to their dependency on the claim 8.

Claim 15 recites the limitation "the modification" in line 14 of the claim. There is insufficient antecedent basis for this limitation in the claim.

The claims 16-20 are rejected due to their dependency on the claim 15.

Claim 21 recites the limitation "the modification" in line 15 of the claim. There is insufficient antecedent basis for this limitation in the claim.

The claims 22-26 are rejected due to their dependency on the claim 21.

The claims 27, 29-30, 32-33, 35-36 and 38 are subject to the same rationale of rejection set forth above.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-27, 29-30, 32-33, 35-36 and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adobe After Effect Version 4.0, July 15, 1999, <http://proquest.safaribooksonline.com/0201658917> (hereinafter After-Effects; for applicant's convenience, a number of relevant pages from the e-book has been printed out and the printed-out-pages are renumbered for ease of reference) in view of Herbstman et al. US Patent No. 5,919,249 (hereinafter Herbstman).

1. Re Claims 1, 8, 15, 21 and 39-40:

After-Effect teaches a method of manipulating a time based stream (e.g., adding effects to a movie clip, an animation clip, etc) of information in a processing system, the method comprising:

Determining whether an original frame of the time based stream of information requires one or more modifications (*see Page 2 and 6 wherein the Render Settings window should be checked for the following settings: "Use No Proxies" and "Effects All" on wherein the option settings and effects are determined in order to allow the selected edit command to be rendered on the actual movie footage w/o effects. Effects correspond to edit features of the claim invention to be rendered on the actual footage movie and "Use No Proxies" correspond to displaying the first frame.*

*The effects Controls window allows the effects options to be applied to the movie clips/frames and thus After-Effect teaches determining the effect control options whether a frame*

*of the movie requires modification such as plug-ins, effects, images added to a movie; see page 1 and 35 or modifications of an original movie at lower-resolution; see also Page 31 wherein effects/coordinates can be controlled in the Effect Controls window; see Pages 9-12) that include adding an edit feature to the original frame, to create a revised frame (The edit feature includes the settings in the Render Settings window which can be changed by a user; see Page 2 and 6 or rendering at lower-resolution of an original movie; the one or more references are the pixel positions/locations/coordinates/time-stamps corresponding to the proxy frame and/or the original frame in the sequence of frames), and storing the one or more modifications in a file for the revised frame (See Page 22, you'll set proxies to speed up screen redraw; see Page 31 wherein the lower-resolution proxies are displayed during rendering of the effects and properties to the actual movie footage into a memory or a file stored in ActHiR.mov and the effects-rendered actual movie footage can be brought into view from the storage by the user wherein the user determines whether to view the effects-rendered proxy or the effects-rendered actual movie footage while the effects and properties are being applied or have been applied to the original movie footage*

*Effects and properties applied to the proxies or the lower-resolution counterparts are applied to the actual footage stored in ActHiR.mov---wherein the revised footage stored in ActHiR.mov meets the claim limitation of "a file for the presentation". After-Effect thus teaches storing the edit effects and properties in the ActHiR.mov file.*

*rendering the project 07Movie.mov which is a sequence of frames of the movie; see Page 2 and 6 wherein the Render Settings window should be checked for the following settings: Use No Proxies and Effects All on wherein effects correspond to edit features of the claim invention;*

With After Effects, the user can also import high-resolution footage of an actor filmed against a blue screen and create a proxy or a lower-resolution copy of the original footage from the Composition window; see Page 9-12. When you use the ActHiR.mov file in a composition, After Effects will use the proxy for display. This last sentence exactly teaches that when you render the actual composition, After Effects will display the proxy during the rendering of the actual composition.

Effects and properties applied to the proxy are applied to the actual footage when the movie is rendered with Use No Proxies selected from the Proxy Use menu in the Render Settings dialog box. This last sentence exactly teaches that displaying the first representation of the presentation by skipping the displaying of the proxy---the second representation of the presentation.

Even though the proxy is 152\*384, it behaves as if it's 2048\*1536 in the composition.

*The edit feature includes the settings in the Render Settings window which can be changed by a user; see Page 2 and 6 or rendering at lower-resolution of an original movie; the one or more references are the pixel positions/locations/coordinates/time-stamps corresponding to the proxy frame and/or the original frame in the sequence of frames); and*

If it is determined that the original frame requires the one or more modifications, automatically creating a proxy of the revised frame while rendering modifications to the original frame, the proxy including a simulation of the one or more modifications (*The original movie can be rendered at lower-resolution proxy during the rendering; see Page 7-11 wherein the proxy representing Photo-JPEG images are rendered at quarter resolution and a frame rate of 24 fps and the edit effects such as Cineon Converter effects are applied to the proxy during the*

rendering of a plurality of time-based streams such as the movie at 24 fps; See also Page 22, proxies including FX\_Prx.mov are created during the rendering wherein proxy images and/or effects are added to the movie FX\_HiR.mov and the proxy frames of FX\_HiR.mov are rendered at the user-selectable resolution with the effects being added to the proxy frames; see Page 21-31 wherein a variety of effects are applied to the lower-resolution proxies/counterparts of the original image frames of the movie project. It is clear that the proxy frames are created during the rendering of the ActHiR.mov as effects are *simultaneously* added to the original movie having a sequence of frames and the proxy frames simulate the modifications/changes/effects to the original movie), that include the edit feature to the original frame (The claimed simulation of the modifications corresponds to the proxy frames being simulated on a display with the new effects being added to the proxy footage while being presented on the display and the simulation of the modifications is stored as a proxy file FX\_HiR.mov----representing the proxy footage. Thus, creating the proxy footage ActPrx.mov or FX\_HiR.mov includes simulating the adding of the effects to the presentation since the simulation of the modifications is related to effects being added to the proxy footage---- ActPrx.mov or FX\_HiR.mov---being presented on a display, as opposed to the actual movie footage----ActHiR.mov----being *simultaneously* rendered on a storage while the proxy is displayed and the editing effects are simulated. The actual movie footage with the rendered editing effects can be brought from the storage into view by the user. The simulation of modifications is added to the proxy frames on a display as the proxy footage is created during-simultaneously with---the rendering and/or adding of the editing features. The original movie footage can be rendered at lower-resolution proxy on a display during the rendering; see Page 7-11 wherein the proxy representing Photo-JPEG images are rendered at

quarter resolution and a frame rate of 24 fps and the edit effects such as Cineon Converter effects are applied to the proxy during the rendering of a plurality of time-based streams such as the movie at 24 fps; See Page 22, proxy is created during the rendering on a display; see Page 30-31 wherein a variety of effects are applied to the lower-resolution proxies/counterparts of the original image frames of the movie project. See Pages 9-12, the effects and properties applied to the proxies or the lower-resolution counterparts are applied to the actual footage stored in ActHiR.mov-----wherein the movie has been revised by adding effects to the original movie footage to create a revised movie footage; see Page 11-12. This above passage describes that the proxy is displayed during the rendering of the effects and properties to the actual movie footage.

See Page 11 wherein ActPrx.mov is a proxy movie footage of ActHiR.mov; see Pages 22-31 for the lower-resolution counterparts/proxies of the original movie);

Sending the proxy to a display device (See Page 22, you'll set proxies to speed up screen redraw; see Page 31 wherein the lower-resolution proxies are displayed) and

Displaying, by the display device, the proxy of the revised frame during the rendering the modifications to the original frame (See Page 22, you'll set proxies to speed up screen redraw; see Page 31 wherein the lower-resolution proxies are displayed during rendering of the effects and properties to the actual movie footage into a memory or a file stored in ActHiR.mov and the effects-rendered actual movie footage can be brought into view from the storage by the user wherein the user determines whether to view the effects-rendered proxy or the effects-rendered actual movie footage while the effects and properties are being applied or have been applied to the original movie footage), and



If is determined that the original frame does not require the modification, displaying the original frame of the time based stream of information (*see Page 2 and 6 wherein the Render Settings window should be checked for the following settings: "Use No Proxies" and "Effects All" on wherein the option settings and effects are determined in order to allow the selected edit command to be rendered on the actual movie footage w/o effects. Effects correspond to edit features of the claim invention to be rendered on the actual footage movie and "Use No Proxies" correspond to displaying the original frame without rendering the proxy of the revised frame since the proper settings of "Use No Proxies" and "effect options" can be set such that the original frame is rendered without effects being applied without rendering the proxy of the original frame.*

*The effects Controls window allows the effects options to be applied or not applied to the movie clips/frames and thus After-Effect teaches determining the effect control options whether or not a frame of the movie requires modification such as plug-ins, effects, images added to a movie; see page 1 and 35 or modifications of an original movie at lower-resolution; see also Page 31 wherein effects/coordinates can be controlled in the Effect Controls window; see Pages 9-12. If options are deactivated in the effects Controls window, the frame of the movie is rendered without effects applied and therefore the original frame of the movie is displayed without the modifications when "Use No Proxies" option is selected).*

However, it needs to be shown whether Adobe After Effect explicitly discloses the claim limitation "during" without the claim limitation of "displaying the proxy frame during the rendering the modifications of the frame". Adobe After Effect at least implicitly discloses the

claim limitation because Adobe After Effect discloses at Pages 9-12 that (with respect to the rendering/storing the effects and properties) the effects and properties applied to the proxies or the lower-resolution counterparts are applied to the actual footage stored in ActHiR.mov---- wherein the movie has been revised by adding effects to the original movie footage to create a revised movie footage. This above passage describes that the proxy is displayed during the rendering of the effects and properties to the actual movie footage into a memory of a file stored as ActHiR.mov file. The user determines whether to view the proxy with the rendered effects or the actual movie footage with the rendered effects. During the rendering of the effects, the proxy movie with the rendered effects is viewed while the effects are also rendered to ActHiR.mov. The effects are being applied or have been applied to the sequence of frames of the movie in the process of rendering and/or in the processing of presentation. When the actual movie footage with the rendered effects is toggled to be viewed in a viewing window, the proxy with the rendered effects is not viewed concurrently after effects are rendered.

Moreover, with respect to the simultaneously rendering/displaying of the actual movie footage, one of the ordinary skill in the art understands from After Effects that simultaneously rendering/displaying the effects and properties to the proxy as well as the actual movie footage can be achieved with two computers loaded with the same footage movie wherein the user has the option to allow one computer to simulate the rendering/displaying of the effects and properties to the proxy and the user has the option to allow the other computer to simultaneously simulate the rendering/displaying of the effects and properties to the actual movie footage.

In a non-limiting example, Adobe After-Effect teaches at Pages 9-12 that the effects and properties applied to the proxies or the lower-resolution counterparts are also applied to the actual footage stored in ActHiR.mov (simultaneously rendering) wherein the effects and properties are rendered to a memory or a file called ActHiR.mov during the displaying of the proxies or the low-resolution counterparts. After-Effects thus fulfill the claimed simultaneously rendering when the effects and properties are simultaneously applied/rendered into the lower-resolution counterparts and the actual footage.

After-Effect thus teaches storing and rendering the modifications (effects and properties) in a file ActHiR.mov for the presentation of the effects/properties as proxies and for the presentation of the movie represented by the proxy sequence of frames while rendering the effects and properties on the application window in a sequence of the proxy image frames. The proxy sequence of frames representing the movie footage can be presented on the application window upon the user's selection/determination. The original movie footage can be revised by adding effects to the original movie footage to provide revised movie footage while the effects are applied to the proxy frames as well as the actual footage. Since the proxy movie footage is extracted based on the actual footage or the revised footage, the presentation of the proxy movie footage is also a presentation of the actual footage while editing is visualized on the displayed and while the effects and properties are actually being performed on the actual movie footage on a storage to create the revised footage. For this reason, After-Effect teaches a first representation (on a storage) of the presentation of a time-based stream of information---actual footage---as first represented by actual footage movie and then second represented (on a display) by the proxy movie footage at a resolution and frame rate set by the user.

The ActHiR.mov represents the revised movie as modified from the original footage after rendering the effects to the original footage in a presentation of the editing effects with the sequence of the image frames. The claimed simulation of the modifications corresponds to the simulation of the effects and properties on the proxy frames on a display device at the user selected resolution and frame rate while the new effects are added to the proxy frames. Thus, creating the proxy movie ActPrx.mov or FX\_HiR.mov includes simulating the adding of the effects to the presentation.

Since the simulation of the modifications is related to effects being added to the proxy---ActPrx.mov or FX\_HiR.mov---on a display, as opposed to adding the edit features to the original footage to create a revised movie footage---ActHiR.mov---which is resident on a storage. When the effects being added to the movie footage---ActHiR.mov---stored on a storage device, simulation occurs within the storage file, ActHiR.mov. The simulation of modifications refers to the simulation of the proxy footage when the effects are added to the proxy frames as visualized on a display as the proxy footage is created during the rendering.

The original footage can be rendered at lower-resolution proxy on a display during the rendering. See Pages 7-11, wherein the proxy representing Photo-JPEG images are rendered at quarter resolution and a frame rate of 24 fps and the edit effects such as Cineon Converter effects are applied to produce the proxy during the rendering of a plurality of time-based streams such as the movie at 24 fps. See also Page 22, proxy is created during the rendering on a display. See also Page 30-31 wherein a variety of effects are applied to the lower-resolution proxies/counterparts of the original image frames of the movie project.

Importantly, Adobe After-Effect teaches at Pages 9-12 that the effects and properties applied to the proxies or the lower-resolution counterparts are applied to the actual footage stored in ActHiR.mov----wherein the movie has been revised by adding effects to the original footage. See Page 11 wherein ActPrx.mov is a proxy movie of ActHiR.mov; see Pages 22-31 for the lower-resolution counterparts/proxies of the original movie footage.

In a non-limiting example, Adobe After Effects teaches in Page 36 and 41 providing the plug-ins or effects to be added to a movie to produce modifications of an original movie rendered as lower-resolution image frames or proxies of the original movie. In Page 31 After Effects teaches that effects/coordinates can be controlled in the Effect Controls window. Adobe After Effects teaches rendering the project named 07Movie.mov, which represents a sequence of frames of the movie. In Page 2 and 6, After Effects teaches that the Render Settings window should be checked for the following settings: Use No Proxies and Effects All on. With After Effects, a user can also import high-resolution footage of an actor filmed against a blue screen and create a proxy or a lower-resolution copy of the original footage from the Composition window; see for example, Page 9-12. When a user use the ActHiR.mov file in a composition, After Effects will use the proxy for display. Effects and properties are applied to the actual footage when the movie is rendered as a proxy with Use No Proxies selected from the Proxy Use menu in the Render Settings dialog box in which a proxy is rendered. Even though the proxy is set to a lower-resolution of 152\*384, it behaves as if it's 2048\*1536 in the composition. After Effects teaches that the edit feature includes the settings in the Render Settings window wherein the settings can be changed by a user. Referring to the Page 2 and 6, to render a lower-resolution

copy of an original movie, the references set forth in the claim invention correspond to the pixel positions/locations/coordinates/frame-time-stamps of the proxy frame(s) and/or the effects in correspondence with the original frame(s). After Effects teaches storing the modifications in response to a user edit command wherein the effects and properties applied to the proxies or the lower-resolution counterparts are also applied to the actual footage, e.g., ActHiR.mov wherein the editing effects are rendered to the actual footage.

In Page 11-12 After Effects teaches that the proxy is stored in the file folder. In Page 11, After Effects teaches that ActPrx.mov is a proxy movie of ActHiR.mov and in Pages 22-31 the proxies of the original movie are displayed as lower-resolution image frames. After Effects further teaches manipulating the time based stream of information in which the project 07Movie.mov is a time based stream of information and is rendered as a sequence of frames representing a movie. In Page 2 and 6 After Effects teaches that the Render Settings window should be checked for the following settings: Use No Proxies and "Effects All" on and the edit effects correspond to edit features of the claim invention are applied to the lower-resolution proxies at the spatial pixel coordinates while sampling the movie at a frame rate.

After Effects further teaches creating a proxy during the rendering and prior to completion of the rendering. Adobe After Effects teaches that the original movie can be rendered at lower-resolution during the rendering and the lower-resolution proxy is created/generated when it is rendered. In a non-limiting example, in Page 7-11, the After Effects teaches that the proxy representing Photo-JPEG images is rendered at quarter resolution of the original movie frames and at a frame rate of 24 fps less than the original movie's frame rate. Since the original movie is rendered at the lower-resolution and at lower frame rate as proxies, the original movie

is modified when rendered. Moreover, when rendering the original movie, special effects such as Converter effects are applied to produce a revised presentation. The edit effects such as Cineon Converter effects are applied to the proxy during the rendering of the movie at 24 fps. In Page 22, proxies including FX\_Prx.mov are created during the rendering and prior to completion of the rendering wherein proxy images and/or effects are added to the movie FX\_HiR.mov and the proxy frames of FX\_HiR.mov are rendered at the user-selectable resolution with the effects being added to the proxy frames. In Page 21-31, a variety of effects are applied to the lower-resolution proxies/counterparts of the original image frames of the movie project.

After Effects teaches the claim limitation that the creating the proxy includes simulating the edit feature on the presentation. Adobe After Effects teaches that the original movie can be rendered as a lower-resolution proxy copy during the rendering. In Page 7-11, After Effects teaches that the proxy representing Photo-JPEG images are rendered at quarter resolution and a frame rate of 24 fps and the edit effects such as Cineon Converter effects are applied to the proxy during the rendering of a plurality of time-based streams such as the movie at 24 fps. In Page 22, it is further illustrated that a proxy is created during the rendering and prior to completion of the rendering. In Page 30-31, a variety of effects are applied to the lower-resolution proxies or counterparts of the original image frames of the movie project.

After Effects teaches sending the proxy to display. In Page 22 After Effects teaches that you'll set proxies to speed up screen redraw and in Page 31 After Effects teaches that the lower-resolution proxies are displayed. After Effects teaches displaying the proxy during the rendering. In Page 22, After Effects teaches you'll set proxies to speed up screen redraw and thus proxies

are displayed for screen redraw. In Page 31 After Effects teaches that the lower-resolution proxies are displayed.

Nevertheless, Herbstman teaches the claim limitation of "during". Herbstman teaches a method for manipulating a time based stream of information in a processing system (Fig. 1), the method comprising:

determining whether an original frame of the time based stream of information requires one or more modifications (*the user selects the render settings of Fig. 1 and column 2, lines 35-67 and column 3, lines 5-15, once the formatted frame is produced, the system checks to determine if other output formats have been requested. If not, the system checks to determine if more frames need to be rendered; column 3, lines 30-50 certain ones of the user configurable render settings may be designated by the user through user interface. At column 4, lines 10-40, the cited reference teaches that proxy use determines whether or not proxies will be used when rendering. Proxies are representations of footage items in outline form and proxies allow for quicker rendering of compositions by eliminating the need to manipulate the pixel data for a piece of footage. Effects determines what effects are enabled for the rendered composition, for example, animation effects and plug-in effects can be disabled to speed up the rendering process. Each effect in a layer can be enabled independently*) that include adding an edit feature to the original frame (*the user selects the render settings of Fig. 1 and column 2, lines 35-67 and column 3, lines 5-15, once the formatted frame is produced, the system checks to determine if other output formats have been requested. If not, the system checks to determine if more frames need to be rendered; column 3, lines 30-50 certain ones of the user configurable render settings may be designated by the user through user interface*), to create revised frame and storing the



one or more modifications in a file for the revised frame (*the user selects the render settings of Fig. 1 and column 2, lines 35-67 and column 3, lines 5-15, once the formatted frame is produced, the system checks to determine if other output formats have been requested. If not, the system checks to determine if more frames need to be rendered; column 3, lines 30-50 certain ones of the user configurable render settings may be designated by the user through user interface. Herbstman teaches at column 6, lines 42-41 that alternatively the render process may be accomplished in parallel in a system which operates more than one processor at a time. Herbstman teaches that the master frames are rendered in a first format or in a second format in parallel as disclosed in column 6, lines 20-67 in accordance with the output format definitions including the proxy use option and the effects/resolutions rendering options for each output format and therefore the proxy is rendered in one format while another frame of a second format (e.g., full resolution format) is rendered based on the same master frame (Fig. 2). Therefore, while continuing adding the edit feature to the first master frame, the first proxy is rendered in the first output device in parallel with the second output device); if it is determined that the original frame requires the one or more modifications, automatically creating a proxy of the revised frame while rendering the one or more modifications to the original frame (Herbstman teaches at column 6, lines 42-41 that alternatively the render process may be accomplished in parallel in a system which operates more than one processor at a time. Herbstman teaches that the master frames are rendered in a first format or in a second format in parallel as disclosed in column 6, lines 20-67 in accordance with the output format definitions including the proxy use option and the effects/resolutions rendering options for each output format and therefore the proxy is rendered in one format while another frame of a second format (e.g., full resolution*

*format) is rendered based on the same master frame (Fig. 2). Therefore, while continuing adding the edit feature to the first master frame, the first proxy is rendered in the first output device in parallel with the second output device.*

*The master frames are rendered in a first format as a proxy frame or in a second format in parallel as disclosed in column 6, lines 20-67 in accordance with the output format definitions including the proxy use option and the effects/resolutions rendering options for each output format and therefore the proxy is rendered in one format while another frame of a second format is rendered in parallel based on the same master frame. While continuing adding the edit feature to the first master frame, the first proxy is rendered in parallel and is created in the display and saved in the memory.*

*The user selects the render settings of Fig. 1 and column 2, lines 35-67 and column 3, lines 5-15, once the formatted frame is produced, the system checks to determine if other output formats have been requested. If not, the system checks to determine if more frames need to be rendered; column 3, lines 30-50 certain ones of the user configurable render settings may be designated by the user through user interface), the proxy including a simulation of the one or more modifications (column 4, lines 10-40, proxy use determines whether proxies will be used when rendering. Proxies are representations of footage items in outline form and proxies allow for quicker rendering of compositions by eliminating the need to manipulate the pixel data for a piece of footage. Effects determines what effects are enabled for the rendered composition, for example, animation effects and plug-in effects can be disabled to speed up the rendering process. Each effect in a layer can be enabled independently), that include the edit feature to the original frame (column 4, lines 10-40, proxy use determines whether proxies will be used when*

rendering. Proxies are representations of footage items in outline form and proxies allow for quicker rendering of compositions by eliminating the need to manipulate the pixel data for a piece of footage. Effects determines what effects are enabled for the rendered composition, for example, animation effects and plug-in effects can be disabled to speed up the rendering process. Each effect in a layer can be enabled independently); sending the proxy to a display device; displaying, by the display device, the proxy of the revised frame during the rendering the modifications to the original frame (e.g., *Herbstman teaches at column 6, lines 42-41 that alternatively the render process may be accomplished in parallel in a system which operates more than one processor at a time. Herbstman teaches that the master frames are rendered in a first format or in a second format in parallel as disclosed in column 6, lines 20-67 in accordance with the output format definitions including the proxy use option and the effects/resolutions rendering options for each output format and therefore the proxy is rendered in one format while another frame of a second format (e.g., full resolution format) is rendered based on the same master frame (Fig. 2). Therefore, while continuing adding the edit feature to the first master frame, the first proxy is rendered in the first output device in parallel with the second output device.*

*The master frames are rendered in a first format as a proxy frame or in a second format in parallel as disclosed in column 6, lines 20-67 in accordance with the output format definitions including the proxy use option and the effects/resolutions rendering options for each output format and therefore the proxy is rendered in one format while another frame of a second format is rendered in parallel based on the same master frame. While continuing adding the edit feature*

*to the first master frame, the first proxy is rendered in parallel and is created in the display and saved in the memory.*

*The frames are rendered in parallel as disclosed in column 6, lines 20-67 in accordance with each output format definitions including the proxy use option and the effects/resolutions rendering options for each output format and therefore the proxy is rendered in one format while another frame of a second format is rendered based on the same master frame) and*

*if it is determined that the original frame does not require the modification, displaying the original frame of the time based stream of information (e.g., at column 4, lines 10-40, Herbstman teaches that the proxy use determines whether or not proxies will be used when rendering. Effects option determines what effects are enabled for the rendered composition, for example, animation effects and plug-in effects can be disabled to speed up the rendering process. Each effect in a layer can be enabled independently. The frames are rendered in parallel as disclosed in column 6, lines 20-67 in accordance with each output format definitions including the proxy use option and the effects/resolutions rendering options for each output format and therefore the original frame of a second format is rendered. The master frames are rendered in a first format as disclosed in column 6, lines 20-67 in accordance with the output format definitions including the proxy use option and the effects/resolutions rendering options for each output format.*

*The original master frames can be rendered as disclosed in column 6, lines 20-67 when the proxy use option and the effects/resolutions rendering options are disabled for each output format and therefore the original master frame is rendered when the use proxy option and effects option are disabled).*

Therefore, Herbstman at least teaches or suggests the claim invention set forth in the claims.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to have combined the teaching of Herbstman and Adobe After Effects because the references alone or in combination teaches the claim limitations set forth in the base claim 1. Having the combined teaching, one of the ordinary skill in the art would have been motivated to provide viewing of the edited effects as proxy while the effects are actually rendered in a high resolution complex movie thus less resources are required to present the effects rendered movie as proxy movie (See Adobe After Effects Pages 9-22 and Herbstman Figs. 1-2 and column 3-6). Moreover, with respect to the simultaneously rendering/displaying of the actual movie footage, one of the ordinary skill in the art understands from After Effects that simultaneously rendering/displaying the effects and properties to the proxy as well as the actual movie footage can be achieved with two computers loaded with the same footage movie wherein the user has the option to allow one computer to simulate the rendering/displaying of the effects and properties to the proxy and the user has the option to allow the other computer to simultaneously simulate the rendering/displaying of the effects and properties to the actual movie footage.

Claims 39-40:

After-Effects further teaches the claim limitation that the one or more references (e.g., pixel positions/locations/coordinates/time-stamps corresponding to the proxy frame and/or the original frame in the sequence of frames) have instructions to manipulate the time based stream of information (e.g., rendering the project 07Movie.mov which is a sequence of frames within a

movie; see Page 2 and 6 wherein the Render Settings window should be checked for the following settings: Use No Proxies and “Effects All” on wherein Effects correspond to edit features of the claim invention are applied to the lower-resolution proxies; With After Effects, the user can also import high-resolution footage of an actor filmed against a blue screen and create a proxy or a lower-resolution copy of the original footage from the Composition window; see Page 9-12. When you use the ActHiR.mov file in a composition, After Effects will use the proxy for display. Effects and properties applied to the proxy are applied to the actual footage when the movie is rendered with Use No Proxies selected from the Proxy Use menu in the Render Settings dialog box. Even though the proxy is 152\*384, it behaves as if it’s 2048\*1536 in the composition. Other edit features or effects can be found in Page 24; adding the FX\_HiR.mov footage item to the composition twice to give the sky a glow; see Page 25 wherein movies are combined)

Re Claims 2, 9, 16, 22:

The claims recite additional claimed limitation of displaying the frame of the time based stream of information in response to the user edit command and sending instructions for creating the proxy if it is determined that the frame requires the modification. However, After Effect further disclose the claim limitation of displaying the frame of the time based stream of information in response to the user edit command and sending instructions for creating the proxy if it is determined that the frame requires the modification (After Effect teaches in Page 11 displaying the proxy footage or movie frames by clicking the proxy indicator to turn it on or off. After Effects teaches in Page 23 creating a new composition at lower-resolution and the lower frame rate upon the user’s edit command. Alternatively, it the option for rendering effects and/or

the option for rendering the proxy are selected, the proxy movie footage is rendered. Otherwise, the actual movie footage is rendered).

Re Claims 3, 10, 17, 23:

The claims recite additional limitation of creating proxy by drawing an imitation of the edit feature. However, After Effects further discloses the claim limitation of creating proxy by drawing an imitation of the edit feature (See Pages 30-31 wherein the imitation of the edit feature is drawn).

Re Claims 4, 11, 18, 24:

The claims recite additional claimed limitation of the edit feature being text and the imitation including simulated character, size and font. However, After Effect further discloses the claim limitation of the edit feature being text and the imitation including simulated character, size and font (See Pages 32-34).

Re Claims 5, 12 and 25:

The claim 5 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of a first software component having instructions for adding the edit feature and the first software component being separate from a second software component that has instructions for creating the proxy. However, After Effect further discloses the claimed limitation of a first software component having instructions for adding the edit feature (the file-format plug-in in Page 35 which presents the Cineon file to After Effects or the Wave Warp plug-in in

Page 36) and the first software component being separate from a second software component that has instructions for creating the proxy (See Page 23 wherein a new composition as a proxy of the original movie is rendered using the Adobe After Effects software which is separate from the plug-in; see Page 41 for the After Effects 4.0 Production Bundle).

Re Claims 6, 13, 19 and 25:

The claim 6 encompasses the same scope of invention as that of claim 5 except additional claimed limitation of the second software unit being a plug-in or ActiveX control.

After Effect further discloses the claim limitation of the second software unit being a plug-in or ActiveX control (for plug-in see Page 1 or the file-format plug-in in Page 35 or the Wave Warp plug-in in Page 36).

Re Claims 7, 14, 20 and 26:

The claims set forth additional claim limitation of displaying of the proxy at a rate that is substantially less than the play rate of the time-based stream of information.

After Effects further discloses the claim limitation of displaying of the proxy at a rate that is substantially less than the play rate of the time-based stream of information (*The original movie can be rendered at lower-resolution proxy during the rendering; see Page 7-11 wherein the proxy representing Photo-JPEG images are rendered at quarter resolution and a frame rate of 24 fps and the edit effects such as Cineon Converter effects are applied to the proxy during the rendering of a plurality of time-based streams such as the movie at 24 fps which is much less than the native playback speed of the original movie*).



2. Re Claims 27, 30, 33 and 36:

After-Effect teaches a method to manipulate a time based stream of information (Pages 9-12, or Page 31 and 35) comprising:

Receiving an edit command (*such as plug-ins, effects, images added to a movie; see page 1 and 35 or modifications of an original movie at lower-resolution; see also Page 31 wherein effects/coordinates can be controlled in the Effect Controls window; see Pages 9-12*);

Retrieving a first frame of time based stream of information in response to the edit command (e.g., *rendering the project 07Movie.mov which is a sequence of frames of the movie; see Page 2 and 6 wherein the Render Settings window should be checked for the following settings: Use No Proxies and Effects All on wherein effects correspond to edit features of the claim invention; With After Effects, the user can also import high-resolution footage of an actor filmed against a blue screen and create a proxy or a lower-resolution copy of the original footage from the Composition window; see Page 9-12. When you use the ActHiR.mov file in a composition, After Effects will use the proxy for display. This last sentence exactly teaches that when you render the actual composition, After Effects will display the proxy during the rendering of the actual composition. Effects and properties applied to the proxy are applied to the actual footage when the movie is rendered with Use No Proxies selected from the Proxy Use menu in the Render Settings dialog box. This last sentence exactly teaches that displaying the first representation of the presentation by skipping the displaying of the proxy--the second representation of the presentation. Even though the proxy is 152\*384, it behaves as if it's 2048\*1536 in the composition*);

Determining whether the first frame requires a modification according to the edit command (see Page 2 and 6 wherein the Render Settings window should be checked for the following settings: "Use No Proxies" and "Effects All" on wherein the option settings and effects are determined in order to allow the selected edit command to be rendered on the actual movie footage w/o effects. Effects correspond to edit features of the claim invention to be rendered on the actual footage movie and "Use No Proxies" correspond to displaying the first frame.

The effects Controls window allows the effects options to be applied to the movie clips/frames and thus After-Effect teaches determining the effect control options whether a frame of the movie requires modification such as plug-ins, effects, images added to a movie; see page 1 and 35 or modifications of an original movie at lower-resolution; see also Page 31 wherein effects/coordinates can be controlled in the Effect Controls window; see Pages 9-12. If options are activated in the effects Controls window, the frame of the movie is rendered with effects applied and therefore either the frame of the movie or the proxy frame of the proxy movie is displayed with the modification.

The edit feature includes the settings in the Render Settings window which can be changed by a user; see Page 2 and 6 wherein the Render Settings window should be checked for the following settings: "Use No Proxies" and "Effects All" on wherein the option settings and effects are determined in order to allow the selected edit command to be rendered on the actual movie footage. Effects correspond to edit features of the claim invention to be rendered on the actual footage movie and "Use No Proxies" correspond to displaying the first representation of the first unit after the modification has been made. With After Effects, the user can also import

*high-resolution footage of an actor filmed against a blue screen and create a proxy or a lower-resolution copy of the original footage from the Composition window; see Page 9-12. When you use the ActHiR.mov file in a composition, After Effects will use the proxy for display. Effects and properties applied to the proxy are applied to the actual footage when the movie is rendered with Use No Proxies selected from the Proxy Use menu in the Render Settings dialog box. Even though the proxy is 152\*384, it behaves as if it's 2048\*1536 in the composition. Other edit features or effects can be found in Page 24; adding the FX\_HiR.mov footage item to the composition twice to give the sky a glow; see Page 25 wherein movies are combined);*

Adding an edit feature to the first frame if the first frame requires the modification to create a second frame (*With After Effects, the user can also import the first frame---high-resolution footage of an actor filmed against a blue screen and create a proxy or a lower-resolution copy of the original footage from the Composition window; see Page 9-12. When you use the ActHiR.mov file in a composition, After Effects will use the proxy for display. Effects and properties applied to the proxy are applied to the actual footage to produce the second frame---the modified actual footage with effects when the movie is rendered with Use No Proxies selected from the Proxy Use menu in the Render Settings dialog box. Even though the proxy is 152\*384, it behaves as if it's 2048\*1536 in the composition. Other edit features or effects can be found in Page 24; adding the FX\_HiR.mov footage item to the composition twice to give the sky a glow; see Page 25 wherein movies are combined);*

Creating a first proxy of the second frame that includes a simulation of the edit feature to the first frame, wherein the creating the first proxy of the second frame is performed while continuing the adding of the edit feature to the first frame (*The original movie---the first frame---*

*can be rendered at lower-resolution proxy during the rendering; see Page 7-11 wherein the proxy representing Photo-JPEG images are rendered at quarter resolution and a frame rate of 24 fps and the edit effects such as Cineon Converter effects are applied to the proxy during the rendering of a plurality of time-based streams such as the movie at 24 fps; See also Page 22, proxies including FX\_Prx.mov are created during the rendering wherein proxy images and/or effects are added to the movie FX\_HiR.mov to create the effects-modified movie footage and the proxy frames of FX\_HiR.mov are rendered at the user-selectable resolution with the effects being added to the proxy frames; see Page 21-31 wherein a variety of effects are applied to the lower-resolution proxies/counterparts of the original image frames of the movie project. It is clear that the proxy frames are created during---simultaneously with--- the rendering of the ActHiR.mov as effects are simultaneously added to the original movie---to create a sequence of frames--- and the proxy frames simulate the modifications/changes/effects to the original movie as well as the modified movie. The claimed simulation of the modifications corresponds to the proxy frames being simulated on a display with the new effects being added to the proxy footage while being presented on the display and the simulation of the modifications is later stored as a proxy file FX\_HiR.mov---representing the proxy footage. Thus, creating the proxy footage ActPrx.mov or FX\_HiR.mov includes simulating the adding of the effects to the presentation since the simulation of the modifications is related to effects being added to the proxy footage---ActPrx.mov or FX\_HiR.mov---being presented on a display, as opposed to the actual movie footage---ActHiR.mov---being **simultaneously** rendered on a storage while the proxy is displayed and the editing effects are simulated. The actual movie footage with the rendered editing effects can be brought from the storage into view by the user. The simulation of*

*modifications is added to the proxy frames on a display as the proxy footage is created during the rendering and/or adding of the editing features. The original movie footage can be rendered at lower-resolution proxy on a display during the rendering; see Page 7-11 wherein the proxy representing Photo-JPEG images are rendered at quarter resolution and a frame rate of 24 fps and the edit effects such as Cineon Converter effects are applied to the proxy during the rendering of a plurality of time-based streams such as the movie at 24 fps; See Page 22, proxy is created during the rendering on a display; see Page 30-31 wherein a variety of effects are applied to the lower-resolution proxies/counterparts of the original image frames of the movie project. See Pages 9-12, the effects and properties applied to the proxies or the lower-resolution counterparts are applied to the actual footage stored in ActHiR.mov-----wherein the movie has been revised by adding effects to the original movie footage to create a revised movie footage; see Page 11-12. This above passage describes that the proxy is displayed during the rendering of the effects and properties to the actual movie footage. See Page 11 wherein ActPrx.mov is a proxy movie footage of ActHiR.mov; see Pages 22-31 for the lower-resolution counterparts/proxies of the original movie); and*

Displaying the proxy of the second frame while continuing the adding the edit feature to the first frame if it is determined that the first frame requires modification (See Page 22, you'll set proxies to speed up screen redraw; see Page 31 wherein the lower-resolution proxies are displayed during rendering of the effects and properties to the actual movie footage stored in ActHiR.mov and the effects-rendered actual movie footage can be brought into view from the storage by the user wherein the user determines whether to view the effects-rendered proxy or the effects-rendered actual movie footage); and

Displaying the first frame of the time based stream of information if it is determined that the first frame does not require the modification (see Page 2 and 6 wherein the Render Settings window should be checked for the following settings: "Use No Proxies" and "Effects All" on wherein the option settings and effects are determined in order to allow the selected edit command to be rendered on the actual movie footage w/o effects. Effects correspond to edit features of the claim invention to be rendered on the actual footage movie and "Use No Proxies" correspond to displaying the original frame without rendering the proxy of the revised frame since the proper settings of "Use No Proxies" and "effect options" can be set such that the original frame is rendered without effects being applied without rendering the proxy of the original frame. Without effects being applied to the actual movie footage, the second frame is the same as the first frame. Effects correspond to edit features of the claim invention to be rendered on the actual footage movie and "Use No Proxies" provides an option for displaying the first frame.

The effects Controls window allows the effects options to be applied to the movie clips/frames and thus After-Effect teaches determining the effect control options whether a frame of the movie requires modification such as plug-ins, effects, images added to a movie; see page 1 and 35 or modifications of an original movie at lower-resolution; see also Page 31 wherein effects/coordinates can be controlled in the Effect Controls window; see Pages 9-12. If options are deactivated in the effects Controls window, the frame of the movie is rendered without effects applied and therefore the first frame of the movie is displayed without the modification).

However, it needs to be shown whether Adobe After Effects explicitly discloses the claim limitation “during” without the claim limitation of “displaying the proxy, which is the second representation of the presentation during rendering the modifications of the first representation of the presentation. Adobe After Effects at least implicitly disclose the claim limitation because Adobe After Effect discloses at Pages 9-12 that the effects and properties applied to the proxies or the lower-resolution counterparts are applied to the actual footage stored in ActHiR.mov--- wherein the movie has been revised by adding effects to the original movie footage to create a revised movie footage. This above passage describes that the proxy is displayed during the rendering of the effects and properties to the actual movie footage stored in ActHiR.mov file. The user determines whether to view the proxy with the rendered effects or the actual movie footage with the rendered effects. During the rendering of the effects, the proxy with the rendered effects is viewed while the effects are also rendered to ActHiR.mov. When the actual movie footage with the rendered effects is toggled to be viewed in a viewing window, the proxy with the rendered effects is not viewed concurrently after effects are rendered.

In a non-limiting example, Adobe After-Effect teaches at Pages 9-12 that the effects and properties applied to the proxies or the lower-resolution counterparts are applied to the actual footage stored in ActHiR.mov wherein the effects and properties are rendered to ActHiR.mov during the displaying of the proxies or the low-resolution counterparts.

After-Effect thus teaches storing and rendering the modifications (effects and properties) in a file ActHiR.mov for the presentation of the effects/properties as proxies and for the presentation of the movie represented by the proxy sequence of frames while rendering the

effects and properties on the application window with a sequence of the proxy image frames. The proxy sequence of frames representing the movie footage can be presented on the application window upon the user's selection/determination. The original movie footage can be revised by adding effects to the original movie footage to provide revised movie footage while the effects are applied to the proxy frames as well as the actual footage. Since the proxy movie footage is extracted based on the actual footage or the revised footage, the presentation of the proxy movie footage is also a presentation of the actual footage while editing is visualized on the displayed while actually being performed on the actual movie footage wherein the effects and properties are applied to the actual footage to create the revised footage. For this reason, After-Effect teaches a first representation of the presentation of a time-based stream of information---actual footage---as first represented by actual footage movie and then second represented by the proxy movie footage at a resolution and frame rate set by the user.

The ActHiR.mov represents the revised movie as modified from the original footage after rendering the effects to the original footage in a presentation of the editing effects with the sequence of the image frames. The claimed simulation of the modifications corresponds to the simulation of the effects and properties on the proxy frames on a display device at the user selected resolution and frame rate while the new effects are added to the proxy frames. Thus, creating the proxy movie ActPrx.mov or FX\_HiR.mov includes simulating the adding of the effects to the presentation.

Since the simulation of the modifications is related to effects being added to the proxy---ActPrx.mov or FX\_HiR.mov---on a display, as opposed to adding the edit features to the original



footage to create a revised movie footage---ActHiR.mov---which is resident on a storage. When the effects being added to the movie footage---ActHiR.mov---stored on a storage device, simulation occurs within the storage file, ActHiR.mov, rather than on the presentation. The simulation of modifications refers to the simulation of the proxy footage when the effects are added to the proxy frames on a display as the proxy footage is created during the rendering.

The original footage can be rendered at lower-resolution proxy on a display during the rendering. See Pages 7-11, wherein the proxy representing Photo-JPEG images are rendered at quarter resolution and a frame rate of 24 fps and the edit effects such as Cineon Converter effects are applied to produce the proxy during the rendering of a plurality of time-based streams such as the movie at 24 fps. See also Page 22, proxy is created during the rendering on a display. See also Page 30-31 wherein a variety of effects are applied to the lower-resolution proxies/counterparts of the original image frames of the movie project.

Importantly, Adobe After-Effect teaches at Pages 9-12 that the effects and properties applied to the proxies or the lower-resolution counterparts are applied to the actual footage stored in ActHiR.mov---wherein the movie has been revised by adding effects to the original footage. See Page 11 wherein ActPrx.mov is a proxy movie of ActHiR.mov; see Pages 22-31 for the lower-resolution counterparts/proxies of the original movie footage.

In a non-limiting example, Adobe After Effects teaches in Page 36 and 41 providing the plug-ins or effects to be added to a movie to produce modifications of an original movie rendered as lower-resolution image frames or proxies of the original movie. In Page 31 After Effects teaches that effects/coordinates can be controlled in the Effect Controls window. Adobe After

Effects teaches rendering the project named 07Movie.mov, which represents a sequence of frames of the movie. In Page 2 and 6, After Effects teaches that the Render Settings window should be checked for the following settings: Use No Proxies and Effects All on. With After Effects, a user can also import high-resolution footage of an actor filmed against a blue screen and create a proxy or a lower-resolution copy of the original footage from the Composition window; see for example, Page 9-12. When a user use the ActHiR.mov file in a composition, After Effects will use the proxy for display. Effects and properties are applied to the actual footage when the movie is rendered as a proxy with Use No Proxies selected from the Proxy Use menu in the Render Settings dialog box in which a proxy is rendered. Even though the proxy is set to a lower-resolution of 152\*384, it behaves as if it's 2048\*1536 in the composition. After Effects teaches that the edit feature includes the settings in the Render Settings window wherein the settings can be changed by a user. Referring to the Page 2 and 6, to render a lower-resolution copy of an original movie, the references set forth in the claim invention correspond to the pixel positions/locations/coordinates/frame-time-stamps of the proxy frame(s) and/or the effects in correspondence with the original frame(s). After Effects teaches storing the modifications in response to a user edit command wherein the effects and properties applied to the proxies or the lower-resolution counterparts are also applied to the actual footage, e.g., ActHiR.mov wherein the editing effects are rendered to the actual footage.

In Page 11-12 After Effects teaches that the proxy is stored in the file folder. In Page 11, After Effects teaches that ActPrx.mov is a proxy movie of ActHiR.mov and in Pages 22-31 the proxies of the original movie are displayed as lower-resolution image frames. After Effects further teaches manipulating the time based stream of information in which the project

07Movie.mov is a time based stream of information and is rendered as a sequence of frames representing a movie. In Page 2 and 6 After Effects teaches that the Render Settings window should be checked for the following settings: Use No Proxies and "Effects All" on and the edit effects correspond to edit features of the claim invention are applied to the lower-resolution proxies at the spatial pixel coordinates while sampling the movie at a frame rate.

After Effects further teaches creating a proxy during the rendering and prior to completion of the rendering. Adobe After Effects teaches that the original movie can be rendered at lower-resolution during the rendering and the lower-resolution proxy is created/generated when it is rendered. In a non-limiting example, in Page 7-11, the After Effects teaches that the proxy representing Photo-JPEG images is rendered at quarter resolution of the original movie frames and at a frame rate of 24 fps less than the original movie's frame rate. Since the original movie is rendered at the lower-resolution and at lower frame rate as proxies, the original movie is modified when rendered. Moreover, when rendering the original movie, special effects such as Converter effects are applied to produce a revised presentation. The edit effects such as Cineon Converter effects are applied to the proxy during the rendering of the movie at 24 fps. In Page 22, proxies including FX\_Prx.mov are created during the rendering and prior to completion of the rendering wherein proxy images and/or effects are added to the movie FX\_HiR.mov and the proxy frames of FX\_HiR.mov are rendered at the user-selectable resolution with the effects being added to the proxy frames. In Page 21-31, a variety of effects are applied to the lower-resolution proxies/counterparts of the original image frames of the movie project.

After Effects teaches the claim limitation that the creating the proxy includes simulating the edit feature on the presentation. Adobe After Effects teaches that the original movie can be

rendered as a lower-resolution proxy copy during the rendering. In Page 7-11, After Effects teaches that the proxy representing Photo-JPEG images are rendered at quarter resolution and a frame rate of 24 fps and the edit effects such as Cineon Converter effects are applied to the proxy during the rendering of a plurality of time-based streams such as the movie at 24 fps. In Page 22, it is further illustrated that a proxy is created during the rendering and prior to completion of the rendering. In Page 30-31, a variety of effects are applied to the lower-resolution proxies or counterparts of the original image frames of the movie project.

After Effects teaches sending the proxy to display. In Page 22 After Effects teaches that you'll set proxies to speed up screen redraw and in Page 31 After Effects teaches that the lower-resolution proxies are displayed. After Effects teaches displaying the proxy during the rendering. In Page 22, After Effects teaches you'll set proxies to speed up screen redraw and thus proxies are displayed for screen redraw. In Page 31 After Effects teaches that the lower-resolution proxies are displayed.

Herbstman teaches a method to manipulate a time based stream of information (Figs. 1-2 and column 3-6) comprising:

Receiving an edit command (*the user selects the render settings of Fig. 1 and column 2, lines 35-67 and column 3, lines 5-15, once the formatted frame is produced, the system checks to determine if other output formats have been requested. If not, the system checks to determine if more frames need to be rendered; column 3, lines 30-50 certain ones of the user configurable render settings may be designated by the user through user interface*);

Retrieving a first frame of time based stream of information (*The frames are rendered in parallel as disclosed in column 6, lines 20-67 in accordance with each output format definitions*

*including the proxy use option and the effects/resolutions rendering options for each output format and therefore the proxy of the master frame is retrieved and then rendered in one format while the master frame is rendered at the second format);*

Determining whether the first frame requires a modification according to the edit command (the user selects the render settings of Fig. 1 and column 2, lines 35-67 and column 3, lines 5-15, once the formatted frame is produced, the system checks to determine if other output formats have been requested. If not, the system checks to determine if more frames need to be rendered; column 3, lines 30-50 certain ones of the user configurable render settings may be designated by the user through user interface. At column 4, lines 10-40, the cited reference teaches that proxy use determines whether proxies will be used when rendering. Proxies are representations of footage items in outline form and proxies allow for quicker rendering of compositions by eliminating the need to manipulate the pixel data for a piece of footage. Effects determines what effects are enabled for the rendered composition, for example, animation effects and plug-in effects can be disabled to speed up the rendering process. Each effect in a layer can be enabled independently);

Adding an edit feature to the first frame if the first frame requires the modification to create a second frame (the user selects the render settings of Fig. 1 and column 2, lines 35-67 so as to modify the first frame to create the second frame with the effects being applied to the first frame and column 3, lines 5-15, once the formatted frame is produced, the system checks to determine if other output formats have been requested. If not, the system checks to determine if more frames need to be rendered; column 3, lines 30-50 certain ones of the user configurable render settings may be designated by the user through user interface);

Creating a first proxy of the second frame that includes a simulation of the edit feature of the first frame, wherein the creating the first proxy of the first frame is performed while continuing the adding of the edit feature to the first frame (*The master frames are rendered in a first format as a proxy frame or in a second format in parallel as disclosed in column 6, lines 20-67 in accordance with the output format definitions including the proxy use option and the effects/resolutions rendering options for each output format and therefore the proxy is rendered in one format while another frame of a second format is rendered based on the same master frame. Therefore, while continuing adding the edit feature to the first master frame, the first proxy is rendered in parallel and is created in the display and saved in the memory.*

*The user selects the render settings of Fig. 1 and column 2, lines 35-67 and column 3, lines 5-15, once the formatted frame is produced, the system checks to determine if other output formats have been requested. If not, the system checks to determine if more frames need to be rendered; column 3, lines 30-50 certain ones of the user configurable render settings may be designated by the user through user interface. At column 4, lines 10-40, the cited reference teaches that proxy use determines whether proxies will be used when rendering. Proxies are representations of footage items in outline form and proxies allow for quicker rendering of compositions by eliminating the need to manipulate the pixel data for a piece of footage. Effects option determines what effects are enabled for the rendered composition, for example, animation effects and plug-in effects can be disabled to speed up the rendering process. Each effect in a layer can be enabled independently so as to create the second frame modified from the first frame);*

Display the proxy of the second frame while continuing the adding the edit feature to the first frame if it is determined that the first frame requires the modification (*The master frames are rendered in a first format as a proxy frame or in a second format in parallel as disclosed in column 6, lines 20-67 in accordance with the output format definitions including the proxy use option and the effects/resolutions rendering options for each output format and therefore the proxy is rendered in one format while another frame of a second format is rendered based on the same master frame. Therefore, while continuing adding the edit feature to the first master frame, the first proxy is rendered in parallel and is created in the display and saved in the memory.*);

Displaying the first frame of the time based stream of information if it is determined that the first frame does not require the modification (e.g., at column 4, lines 10-40, *Herbstman teaches that the proxy use determines whether or not proxies will be used when rendering. Effects option determines what effects are enabled for the rendered composition, for example, animation effects and plug-in effects can be disabled to speed up the rendering process. Each effect in a layer can be enabled independently.* The frames are rendered in parallel as disclosed in column 6, lines 20-67 in accordance with each output format definitions including the proxy use option and the effects/resolutions rendering options for each output format and therefore the original frame of a second format is rendered. The master frames are rendered in a first format as disclosed in column 6, lines 20-67 in accordance with the output format definitions including the proxy use option and the effects/resolutions rendering options for each output format.

The original master frames can be rendered as disclosed in column 6, lines 20-67 when the proxy use option and the effects/resolutions rendering options are disabled for each output

format and therefore the original master frame is rendered when the use proxy option and effects option are disabled).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to have combined the teaching of Herbstman and Adobe After Effects because the references alone or in combination teaches the claim limitations set forth in the base claim 1. Having the combined teaching, one of the ordinary skill in the art would have been motivated to provide viewing of the edited effects as proxy while the effects are actually rendered in a high resolution complex movie thus less resources are required to display the effects rendered movie (See Adobe After Effects Pages 9-22 and Herbstman Figs. 1-2 and column 3-6).

Re Claims 29, 32, 35 and 38:

Adobe After Effects and Herbstman further teach the claim limitation of determining whether the first frame is displayed and skipping the displaying of the proxy if the first frame is displayed (*see Page 2 and 6 wherein the Render Settings window should be checked for the following settings: "Use No Proxies" and "Effects All" on wherein the option settings and effects are determined in order to allow the selected edit command to be rendered on the actual movie footage. Effects correspond to edit features of the claim invention to be rendered on the actual footage movie and "Use No Proxies" correspond to displaying the first frame*).

Claims 1-27, 29-30, 32-33, 35-36 and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adobe After Effect Version 4.0, July 15, 1999,



<http://proquest.safaribooksonline.com/0201658917> (hereinafter After-Effects; for applicant's convenience, a number of relevant pages from the e-book has been printed out and the printed-out-pages are renumbered for ease of reference) in view of Phillips US Patent No. 6,215,485 (hereinafter Phillips).

3. Re Claims 1, 8, 15, 21 and 39-40:

After-Effect teaches a method of manipulating a time based stream (e.g., adding effects to a movie clip, an animation clip, etc) of information in a processing system, the method comprising:

Determining whether an original frame of the time based stream of information requires one or more modifications (*see Page 2 and 6 wherein the Render Settings window should be checked for the following settings: "Use No Proxies" and "Effects All" on wherein the option settings and effects are determined in order to allow the selected edit command to be rendered on the actual movie footage w/o effects. Effects correspond to edit features of the claim invention to be rendered on the actual footage movie and "Use No Proxies" correspond to displaying the first frame.*

*The effects Controls window allows the effects options to be applied to the movie clips/frames and thus After-Effect teaches determining the effect control options whether a frame of the movie requires modification such as plug-ins, effects, images added to a movie; see page 1 and 35 or modifications of an original movie at lower-resolution; see also Page 31 wherein effects/coordinates can be controlled in the Effect Controls window; see Pages 9-12) that include adding an edit feature to the original frame, to create a revised frame (The edit feature includes*

*the settings in the Render Settings window which can be changed by a user; see Page 2 and 6 or rendering at lower-resolution of an original movie; the one or more references are the pixel positions/locations/coordinates/time-stamps corresponding to the proxy frame and/or the original frame in the sequence of frames), and storing the one or more modifications in a file for the revised frame (See Page 22, you'll set proxies to speed up screen redraw; see Page 31 wherein the lower-resolution proxies are displayed during rendering of the effects and properties to the actual movie footage into a memory or a file stored in ActHiR.mov and the effects-rendered actual movie footage can be brought into view from the storage by the user wherein the user determines whether to view the effects-rendered proxy or the effects-rendered actual movie footage while the effects and properties are being applied or have been applied to the original movie footage*

*Effects and properties applied to the proxies or the lower-resolution counterparts are applied to the actual footage stored in ActHiR.mov---wherein the revised footage stored in ActHiR.mov meets the claim limitation of "a file for the presentation". After-Effect thus teaches storing the edit effects and properties in the ActHiR.mov file.*

*rendering the project 07Movie.mov which is a sequence of frames of the movie; see Page 2 and 6 wherein the Render Settings window should be checked for the following settings: Use No Proxies and Effects All on wherein effects correspond to edit features of the claim invention; With After Effects, the user can also import high-resolution footage of an actor filmed against a blue screen and create a proxy or a lower-resolution copy of the original footage from the Composition window; see Page 9-12. When you use the ActHiR.mov file in a composition, After Effects will use the proxy for display. This last sentence exactly teaches that when you render the*

actual composition, After Effects will display the proxy during the rendering of the actual composition.

Effects and properties applied to the proxy are applied to the actual footage when the movie is rendered with Use No Proxies selected from the Proxy Use menu in the Render Settings dialog box. This last sentence exactly teaches that displaying the first representation of the presentation by skipping the displaying of the proxy---the second representation of the presentation.

Even though the proxy is 152\*384, it behaves as if it's 2048\*1536 in the composition.

The edit feature includes the settings in the Render Settings window which can be changed by a user; see Page 2 and 6 or rendering at lower-resolution of an original movie; the one or more references are the pixel positions/locations/coordinates/time-stamps corresponding to the proxy frame and/or the original frame in the sequence of frames); and

If it is determined that the original frame requires the one or more modifications, automatically creating a proxy of the revised frame while rendering modifications to the original frame, the proxy including a simulation of the one or more modifications (The original movie can be rendered at lower-resolution proxy during the rendering; see Page 7-11 wherein the proxy representing Photo-JPEG images are rendered at quarter resolution and a frame rate of 24 fps and the edit effects such as Cineon Converter effects are applied to the proxy during the rendering of a plurality of time-based streams such as the movie at 24 fps; See also Page 22, proxies including FX\_Prx.mov are created during the rendering wherein proxy images and/or effects are added to the movie FX\_HiR.mov and the proxy frames of FX\_HiR.mov are rendered at the user-selectable resolution with the effects being added to the proxy frames; see Page 21-

31 wherein a variety of effects are applied to the lower-resolution proxies/counterparts of the original image frames of the movie project. It is clear that the proxy frames are created during the rendering of the ActHiR.mov as effects are *simultaneously* added to the original movie having a sequence of frames and the proxy frames simulate the modifications/changes/effects to the original movie), that include the edit feature to the original frame (The claimed simulation of the modifications corresponds to the proxy frames being simulated on a display with the new effects being added to the proxy footage while being presented on the display and the simulation of the modifications is stored as a proxy file FX\_HiR.mov----representing the proxy footage. Thus, creating the proxy footage ActPrx.mov or FX\_HiR.mov includes simulating the adding of the effects to the presentation since the simulation of the modifications is related to effects being added to the proxy footage---- ActPrx.mov or FX\_HiR.mov---being presented on a display, as opposed to the actual movie footage----ActHiR.mov---being *simultaneously* rendered on a storage while the proxy is displayed and the editing effects are simulated. The actual movie footage with the rendered editing effects can be brought from the storage into view by the user. The simulation of modifications is added to the proxy frames on a display as the proxy footage is created during-simultaneously with---the rendering and/or adding of the editing features. The original movie footage can be rendered at lower-resolution proxy on a display during the rendering; see Page 7-11 wherein the proxy representing Photo-JPEG images are rendered at quarter resolution and a frame rate of 24 fps and the edit effects such as Cineon Converter effects are applied to the proxy during the rendering of a plurality of time-based streams such as the movie at 24 fps; See Page 22, proxy is created during the rendering on a display; see Page 30-31 wherein a variety of effects are applied to the lower-resolution proxies/counterparts of the

*original image frames of the movie project. See Pages 9-12, the effects and properties applied to the proxies or the lower-resolution counterparts are applied to the actual footage stored in ActHiR.mov---wherein the movie has been revised by adding effects to the original movie footage to create a revised movie footage; see Page 11-12. This above passage describes that the proxy is displayed during the rendering of the effects and properties to the actual movie footage.*

*See Page 11 wherein ActPrx.mov is a proxy movie footage of ActHiR.mov; see Pages 22-31 for the lower-resolution counterparts/proxies of the original movie);*

*Sending the proxy to a display device (See Page 22, you'll set proxies to speed up screen redraw; see Page 31 wherein the lower-resolution proxies are displayed) and*

*Displaying, by the display device, the proxy of the revised frame during the rendering the modifications to the original frame (See Page 22, you'll set proxies to speed up screen redraw; see Page 31 wherein the lower-resolution proxies are displayed during rendering of the effects and properties to the actual movie footage into a memory or a file stored in ActHiR.mov and the effects-rendered actual movie footage can be brought into view from the storage by the user wherein the user determines whether to view the effects-rendered proxy or the effects-rendered actual movie footage while the effects and properties are being applied or have been applied to the original movie footage), and*

*If is determined that the original frame does not require the modification, displaying the original frame of the time based stream of information (see Page 2 and 6 wherein the Render Settings window should be checked for the following settings: "Use No Proxies" and "Effects All" on wherein the option settings and effects are determined in order to allow the selected edit command to be rendered on the actual movie footage w/o effects. Effects correspond to edit*

*features of the claim invention to be rendered on the actual footage movie and "Use No Proxies" correspond to displaying the original frame without rendering the proxy of the revised frame since the proper settings of "Use No Proxies" and "effect options" can be set such that the original frame is rendered without effects being applied without rendering the proxy of the original frame.*

*The effects Controls window allows the effects options to be applied or not applied to the movie clips/frames and thus After-Effect teaches determining the effect control options whether or not a frame of the movie requires modification such as plug-ins, effects, images added to a movie; see page 1 and 35 or modifications of an original movie at lower-resolution; see also Page 31 wherein effects/coordinates can be controlled in the Effect Controls window; see Pages 9-12. If options are deactivated in the effects Controls window, the frame of the movie is rendered without effects applied and therefore the original frame of the movie is displayed without the modifications when "Use No Proxies" option is selected).*

However, it needs to be shown whether Adobe After Effect explicitly discloses the claim limitation "during" without the claim limitation of "displaying the proxy frame during the rendering the modifications of the frame". Adobe After Effect at least implicitly discloses the claim limitation because Adobe After Effect discloses at Pages 9-12 that (with respect to the rendering/storing the effects and properties) the effects and properties applied to the proxies or the lower-resolution counterparts are applied to the actual footage stored in ActHiR.mov---- wherein the movie has been revised by adding effects to the original movie footage to create a

revised movie footage. This above passage describes that the proxy is displayed during the rendering of the effects and properties to the actual movie footage into a memory of a file stored as ActHiR.mov file. The user determines whether to view the proxy with the rendered effects or the actual movie footage with the rendered effects. During the rendering of the effects, the proxy movie with the rendered effects is viewed while the effects are also rendered to ActHiR.mov. The effects are being applied or have been applied to the sequence of frames of the movie in the process of rendering and/or in the processing of presentation. When the actual movie footage with the rendered effects is toggled to be viewed in a viewing window, the proxy with the rendered effects is not viewed concurrently after effects are rendered.

Moreover, with respect to the simultaneously rendering/displaying of the actual movie footage, one of the ordinary skill in the art understands from After Effects that simultaneously rendering/displaying the effects and properties to the proxy as well as the actual movie footage can be achieved with two computers loaded with the same footage movie wherein the user has the option to allow one computer to simulate the rendering/displaying of the effects and properties to the proxy and the user has the option to allow the other computer to simultaneously simulate the rendering/displaying of the effects and properties to the actual movie footage.

In a non-limiting example, Adobe After-Effect teaches at Pages 9-12 that the effects and properties applied to the proxies or the lower-resolution counterparts are also applied to the actual footage stored in ActHiR.mov (simultaneously rendering) wherein the effects and properties are rendered to a memory or a file called ActHiR.mov during the displaying of the proxies or the low-resolution counterparts. After-Effects thus fulfill the claimed simultaneously

rendering when the effects and properties are simultaneously applied/rendered into the lower-resolution counterparts and the actual footage.

After-Effect thus teaches storing and rendering the modifications (effects and properties) in a file ActHiR.mov for the presentation of the effects/properties as proxies and for the presentation of the movie represented by the proxy sequence of frames while rendering the effects and properties on the application window in a sequence of the proxy image frames. The proxy sequence of frames representing the movie footage can be presented on the application window upon the user's selection/determination. The original movie footage can be revised by adding effects to the original movie footage to provide revised movie footage while the effects are applied to the proxy frames as well as the actual footage. Since the proxy movie footage is extracted based on the actual footage or the revised footage, the presentation of the proxy movie footage is also a presentation of the actual footage while editing is visualized on the displayed and while the effects and properties are actually being performed on the actual movie footage on a storage to create the revised footage. For this reason, After-Effect teaches a first representation (on a storage) of the presentation of a time-based stream of information---actual footage---as first represented by actual footage movie and then second represented (on a display) by the proxy movie footage at a resolution and frame rate set by the user.

The ActHiR.mov represents the revised movie as modified from the original footage after rendering the effects to the original footage in a presentation of the editing effects with the sequence of the image frames. The claimed simulation of the modifications corresponds to the simulation of the effects and properties on the proxy frames on a display device at the user



selected resolution and frame rate while the new effects are added to the proxy frames. Thus, creating the proxy movie ActPrx.mov or FX\_HiR.mov includes simulating the adding of the effects to the presentation.

Since the simulation of the modifications is related to effects being added to the proxy---ActPrx.mov or FX\_HiR.mov---on a display, as opposed to adding the edit features to the original footage to create a revised movie footage---ActHiR.mov---which is resident on a storage. When the effects being added to the movie footage---ActHiR.mov---stored on a storage device, simulation occurs within the storage file, ActHiR.mov. The simulation of modifications refers to the simulation of the proxy footage when the effects are added to the proxy frames as visualized on a display as the proxy footage is created during the rendering.

The original footage can be rendered at lower-resolution proxy on a display during the rendering. See Pages 7-11, wherein the proxy representing Photo-JPEG images are rendered at quarter resolution and a frame rate of 24 fps and the edit effects such as Cineon Converter effects are applied to produce the proxy during the rendering of a plurality of time-based streams such as the movie at 24 fps. See also Page 22, proxy is created during the rendering on a display. See also Page 30-31 wherein a variety of effects are applied to the lower-resolution proxies/counterparts of the original image frames of the movie project.

Importantly, Adobe After-Effect teaches at Pages 9-12 that the effects and properties applied to the proxies or the lower-resolution counterparts are applied to the actual footage stored in ActHiR.mov---wherein the movie has been revised by adding effects to the original footage. See Page 11 wherein ActPrx.mov is a proxy movie of ActHiR.mov; see Pages 22-31 for the lower-resolution counterparts/proxies of the original movie footage.

In a non-limiting example, Adobe After Effects teaches in Page 36 and 41 providing the plug-ins or effects to be added to a movie to produce modifications of an original movie rendered as lower-resolution image frames or proxies of the original movie. In Page 31 After Effects teaches that effects/coordinates can be controlled in the Effect Controls window. Adobe After Effects teaches rendering the project named 07Movie.mov, which represents a sequence of frames of the movie. In Page 2 and 6, After Effects teaches that the Render Settings window should be checked for the following settings: Use No Proxies and Effects All on. With After Effects, a user can also import high-resolution footage of an actor filmed against a blue screen and create a proxy or a lower-resolution copy of the original footage from the Composition window; see for example, Page 9-12. When a user use the ActHiR.mov file in a composition, After Effects will use the proxy for display. Effects and properties are applied to the actual footage when the movie is rendered as a proxy with Use No Proxies selected from the Proxy Use menu in the Render Settings dialog box in which a proxy is rendered. Even though the proxy is set to a lower-resolution of 152\*384, it behaves as if it's 2048\*1536 in the composition. After Effects teaches that the edit feature includes the settings in the Render Settings window wherein the settings can be changed by a user. Referring to the Page 2 and 6, to render a lower-resolution copy of an original movie, the references set forth in the claim invention correspond to the pixel positions/locations/coordinates/frame-time-stamps of the proxy frame(s) and/or the effects in correspondence with the original frame(s). After Effects teaches storing the modifications in response to a user edit command wherein the effects and properties applied to the proxies or the

lower-resolution counterparts are also applied to the actual footage, e.g., ActHiR.mov wherein the editing effects are rendered to the actual footage.

In Page 11-12 After Effects teaches that the proxy is stored in the file folder. In Page 11, After Effects teaches that ActPrx.mov is a proxy movie of ActHiR.mov and in Pages 22-31 the proxies of the original movie are displayed as lower-resolution image frames. After Effects further teaches manipulating the time based stream of information in which the project 07Movie.mov is a time based stream of information and is rendered as a sequence of frames representing a movie. In Page 2 and 6 After Effects teaches that the Render Settings window should be checked for the following settings: Use No Proxies and "Effects All" on and the edit effects correspond to edit features of the claim invention are applied to the lower-resolution proxies at the spatial pixel coordinates while sampling the movie at a frame rate.

After Effects further teaches creating a proxy during the rendering and prior to completion of the rendering. Adobe After Effects teaches that the original movie can be rendered at lower-resolution during the rendering and the lower-resolution proxy is created/generated when it is rendered. In a non-limiting example, in Page 7-11, the After Effects teaches that the proxy representing Photo-JPEG images is rendered at quarter resolution of the original movie frames and at a frame rate of 24 fps less than the original movie's frame rate. Since the original movie is rendered at the lower-resolution and at lower frame rate as proxies, the original movie is modified when rendered. Moreover, when rendering the original movie, special effects such as Converter effects are applied to produce a revised presentation. The edit effects such as Cineon Converter effects are applied to the proxy during the rendering of the movie at 24 fps. In Page 22, proxies including FX\_Pr.x.mov are created during the rendering and prior to completion of

the rendering wherein proxy images and/or effects are added to the movie FX\_HiR.mov and the proxy frames of FX\_HiR.mov are rendered at the user-selectable resolution with the effects being added to the proxy frames. In Page 21-31, a variety of effects are applied to the lower-resolution proxies/counterparts of the original image frames of the movie project.

After Effects teaches the claim limitation that the creating the proxy includes simulating the edit feature on the presentation. Adobe After Effects teaches that the original movie can be rendered as a lower-resolution proxy copy during the rendering. In Page 7-11, After Effects teaches that the proxy representing Photo-JPEG images are rendered at quarter resolution and a frame rate of 24 fps and the edit effects such as Cineon Converter effects are applied to the proxy during the rendering of a plurality of time-based streams such as the movie at 24 fps. In Page 22, it is further illustrated that a proxy is created during the rendering and prior to completion of the rendering. In Page 30-31, a variety of effects are applied to the lower-resolution proxies or counterparts of the original image frames of the movie project.

After Effects teaches sending the proxy to display. In Page 22 After Effects teaches that you'll set proxies to speed up screen redraw and in Page 31 After Effects teaches that the lower-resolution proxies are displayed. After Effects teaches displaying the proxy during the rendering. In Page 22, After Effects teaches you'll set proxies to speed up screen redraw and thus proxies are displayed for screen redraw. In Page 31 After Effects teaches that the lower-resolution proxies are displayed.

Nevertheless, Phillips teaches the claim limitation of "during". Phillips discloses at col. 10, lines 5-20, column 12, lines 28-51 that the high-resolution images with special effects 332 are rendered on the film recorder while the proxy---low resolution video images 335 are

displayed to editor 110 in which the artist 120 renders the special effects. Phillips also discloses at column 24, lines 10-16 that the video proxy image 335 may be a high resolution HDTV image. Therefore, the editing may be performed while displayed on both the low-resolution proxy images and the high-resolution images.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to have combined the teaching of Phillips and Adobe After Effects because the references alone or in combination teaches the claim limitations set forth in the base claim 1. Having the combined teaching, one of the ordinary skill in the art would have been motivated to provide viewing of the edited effects as proxy while the effects are actually rendered in a high resolution complex movie thus less resources are required to present the effects rendered movie as proxy movie (See Adobe After Effects Pages 9-22 and Phillips col. 10-12). Moreover, with respect to the simultaneously rendering/displaying of the actual movie footage, one of the ordinary skill in the art understands from After Effects that simultaneously rendering/displaying the effects and properties to the proxy as well as the actual movie footage can be achieved with two computers loaded with the same footage movie wherein the user has the option to allow one computer to simulate the rendering/displaying of the effects and properties to the proxy and the user has the option to allow the other computer to simultaneously simulate the rendering/displaying of the effects and properties to the actual movie footage.

Claims 39-40:

After-Effects further teaches the claim limitation that the one or more references (e.g., pixel positions/locations/coordinates/time-stamps corresponding to the proxy frame and/or the

original frame in the sequence of frames) have instructions to manipulate the time based stream of information (e.g., rendering the project 07Movie.mov which is a sequence of frames within a movie; see Page 2 and 6 wherein the Render Settings window should be checked for the following settings: Use No Proxies and “Effects All” on wherein Effects correspond to edit features of the claim invention are applied to the lower-resolution proxies; With After Effects, the user can also import high-resolution footage of an actor filmed against a blue screen and create a proxy or a lower-resolution copy of the original footage from the Composition window; see Page 9-12. When you use the ActHiR.mov file in a composition, After Effects will use the proxy for display. Effects and properties applied to the proxy are applied to the actual footage when the movie is rendered with Use No Proxies selected from the Proxy Use menu in the Render Settings dialog box. Even though the proxy is 152\*384, it behaves as if it’s 2048\*1536 in the composition. Other edit features or effects can be found in Page 24; adding the FX\_HiR.mov footage item to the composition twice to give the sky a glow; see Page 25 wherein movies are combined)

Re Claims 2, 9, 16, 22:

The claims recite additional claimed limitation of displaying the frame of the time based stream of information in response to the user edit command and sending instructions for creating the proxy if it is determined that the frame requires the modification. However, After Effect further disclose the claim limitation of displaying the frame of the time based stream of information in response to the user edit command and sending instructions for creating the proxy if it is determined that the frame requires the modification (After Effect teaches in Page 11 displaying the proxy footage or movie frames by clicking the proxy indicator to turn it on or off.

After Effects teaches in Page 23 creating a new composition at lower-resolution and the lower frame rate upon the user's edit command. Alternatively, if the option for rendering effects and/or the option for rendering the proxy are selected, the proxy movie footage is rendered. Otherwise, the actual movie footage is rendered).

Re Claims 3, 10, 17, 23:

The claims recite additional limitation of creating proxy by drawing an imitation of the edit feature. However, After Effects further discloses the claim limitation of creating proxy by drawing an imitation of the edit feature (See Pages 30-31 wherein the imitation of the edit feature is drawn).

Re Claims 4, 11, 18, 24:

The claims recite additional claimed limitation of the edit feature being text and the imitation including simulated character, size and font. However, After Effect further discloses the claim limitation of the edit feature being text and the imitation including simulated character, size and font (See Pages 32-34).

Re Claims 5, 12 and 25:

The claim 5 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of a first software component having instructions for adding the edit feature and the first software component being separate from a second software component that has instructions for creating the proxy. However, After Effect further discloses the claimed limitation

of a first software component having instructions for adding the edit feature (the file-format plug-in in Page 35 which presents the Cineon file to After Effects or the Wave Warp plug-in in Page 36) and the first software component being separate from a second software component that has instructions for creating the proxy (See Page 23 wherein a new composition as a proxy of the original movie is rendered using the Adobe After Effects software which is separate from the plug-in; see Page 41 for the After Effects 4.0 Production Bundle).

Re Claims 6, 13, 19 and 25:

The claim 6 encompasses the same scope of invention as that of claim 5 except additional claimed limitation of the second software unit being a plug-in or ActiveX control.

After Effect further discloses the claim limitation of the second software unit being a plug-in or ActiveX control (for plug-in see Page 1 or the file-format plug-in in Page 35 or the Wave Warp plug-in in Page 36).

Re Claims 7, 14, 20 and 26:

The claims set forth additional claim limitation of displaying of the proxy at a rate that is substantially less than the play rate of the time-based stream of information.

After Effects further discloses the claim limitation of displaying of the proxy at a rate that is substantially less than the play rate of the time-based stream of information (*The original movie can be rendered at lower-resolution proxy during the rendering; see Page 7-11 wherein the proxy representing Photo-JPEG images are rendered at quarter resolution and a frame rate of 24 fps and the edit effects such as Cineon Converter effects are applied to the proxy during the*



*rendering of a plurality of time-based streams such as the movie at 24 fps which is much less than the native playback speed of the original movie).*

4. Re Claims 27, 30, 33 and 36:

After-Effect teaches a method to manipulate a time based stream of information (Pages 9-12, or Page 31 and 35) comprising:

Receiving an edit command (*such as plug-ins, effects, images added to a movie; see page 1 and 35 or modifications of an original movie at lower-resolution; see also Page 31 wherein effects/coordinates can be controlled in the Effect Controls window; see Pages 9-12*);

Retrieving a first frame of time based stream of information in response to the edit command (e.g., *rendering the project 07Movie.mov which is a sequence of frames of the movie; see Page 2 and 6 wherein the Render Settings window should be checked for the following settings: Use No Proxies and Effects All on wherein effects correspond to edit features of the claim invention; With After Effects, the user can also import high-resolution footage of an actor filmed against a blue screen and create a proxy or a lower-resolution copy of the original footage from the Composition window; see Page 9-12. When you use the ActHiR.mov file in a composition, After Effects will use the proxy for display. This last sentence exactly teaches that when you render the actual composition, After Effects will display the proxy during the rendering of the actual composition. Effects and properties applied to the proxy are applied to the actual footage when the movie is rendered with Use No Proxies selected from the Proxy Use menu in the Render Settings dialog box. This last sentence exactly teaches that displaying the first representation of the presentation by skipping the displaying of the proxy---the second*

representation of the presentation. Even though the proxy is 152\*384, it behaves as if it's 2048\*1536 in the composition);

Determining whether the first frame requires a modification according to the edit command (see Page 2 and 6 wherein the Render Settings window should be checked for the following settings: "Use No Proxies" and "Effects All" on wherein the option settings and effects are determined in order to allow the selected edit command to be rendered on the actual movie footage w/o effects. Effects correspond to edit features of the claim invention to be rendered on the actual footage movie and "Use No Proxies" correspond to displaying the first frame.

The effects Controls window allows the effects options to be applied to the movie clips/frames and thus After-Effect teaches determining the effect control options whether a frame of the movie requires modification such as plug-ins, effects, images added to a movie; see page 1 and 35 or modifications of an original movie at lower-resolution; see also Page 31 wherein effects/coordinates can be controlled in the Effect Controls window; see Pages 9-12. If options are activated in the effects Controls window, the frame of the movie is rendered with effects applied and therefore either the frame of the movie or the proxy frame of the proxy movie is displayed with the modification.

The edit feature includes the settings in the Render Settings window which can be changed by a user; see Page 2 and 6 wherein the Render Settings window should be checked for the following settings: "Use No Proxies" and "Effects All" on wherein the option settings and effects are determined in order to allow the selected edit command to be rendered on the actual movie footage. Effects correspond to edit features of the claim invention to be rendered on the

*actual footage movie and "Use No Proxies" correspond to displaying the first representation of the first unit after the modification has been made. With After Effects, the user can also import high-resolution footage of an actor filmed against a blue screen and create a proxy or a lower-resolution copy of the original footage from the Composition window; see Page 9-12. When you use the ActHiR.mov file in a composition, After Effects will use the proxy for display. Effects and properties applied to the proxy are applied to the actual footage when the movie is rendered with Use No Proxies selected from the Proxy Use menu in the Render Settings dialog box. Even though the proxy is 152\*384, it behaves as if it's 2048\*1536 in the composition. Other edit features or effects can be found in Page 24; adding the FX\_HiR.mov footage item to the composition twice to give the sky a glow; see Page 25 wherein movies are combined);*

Adding an edit feature to the first frame if the first frame requires the modification to create a second frame (*With After Effects, the user can also import the first frame---high-resolution footage of an actor filmed against a blue screen and create a proxy or a lower-resolution copy of the original footage from the Composition window; see Page 9-12. When you use the ActHiR.mov file in a composition, After Effects will use the proxy for display. Effects and properties applied to the proxy are applied to the actual footage to produce the second frame---the modified actual footage with effects when the movie is rendered with Use No Proxies selected from the Proxy Use menu in the Render Settings dialog box. Even though the proxy is 152\*384, it behaves as if it's 2048\*1536 in the composition. Other edit features or effects can be found in Page 24; adding the FX\_HiR.mov footage item to the composition twice to give the sky a glow; see Page 25 wherein movies are combined);*

Creating a first proxy of the second frame that includes a simulation of the edit feature to the first frame, wherein the creating the first proxy of the second frame is performed while continuing the adding of the edit feature to the first frame (*The original movie--the first frame--can be rendered at lower-resolution proxy during the rendering; see Page 7-11 wherein the proxy representing Photo-JPEG images are rendered at quarter resolution and a frame rate of 24 fps and the edit effects such as Cineon Converter effects are applied to the proxy during the rendering of a plurality of time-based streams such as the movie at 24 fps; See also Page 22, proxies including FX\_Prx.mov are created during the rendering wherein proxy images and/or effects are added to the movie FX\_HiR.mov to create the effects-modified movie footage and the proxy frames of FX\_HiR.mov are rendered at the user-selectable resolution with the effects being added to the proxy frames; see Page 21-31 wherein a variety of effects are applied to the lower-resolution proxies/counterparts of the original image frames of the movie project. It is clear that the proxy frames are created during---simultaneously with--- the rendering of the ActHiR.mov as effects are simultaneously added to the original movie----to create a sequence of frames--- and the proxy frames simulate the modifications/changes/effects to the original movie as well as the modified movie. The claimed simulation of the modifications corresponds to the proxy frames being simulated on a display with the new effects being added to the proxy footage while being presented on the display and the simulation of the modifications is later stored as a proxy file FX\_HiR.mov---representing the proxy footage. Thus, creating the proxy footage ActPrx.mov or FX\_HiR.mov includes simulating the adding of the effects to the presentation since the simulation of the modifications is related to effects being added to the proxy footage--- ActPrx.mov or FX\_HiR.mov---being presented on a display, as opposed to the actual movie*

*footage---ActHiR.mov---being simultaneously rendered on a storage while the proxy is displayed and the editing effects are simulated. The actual movie footage with the rendered editing effects can be brought from the storage into view by the user. The simulation of modifications is added to the proxy frames on a display as the proxy footage is created during the rendering and/or adding of the editing features. The original movie footage can be rendered at lower-resolution proxy on a display during the rendering; see Page 7-11 wherein the proxy representing Photo-JPEG images are rendered at quarter resolution and a frame rate of 24 fps and the edit effects such as Cineon Converter effects are applied to the proxy during the rendering of a plurality of time-based streams such as the movie at 24 fps; See Page 22, proxy is created during the rendering on a display; see Page 30-31 wherein a variety of effects are applied to the lower-resolution proxies/counterparts of the original image frames of the movie project. See Pages 9-12, the effects and properties applied to the proxies or the lower-resolution counterparts are applied to the actual footage stored in ActHiR.mov----wherein the movie has been revised by adding effects to the original movie footage to create a revised movie footage; see Page 11-12. This above passage describes that the proxy is displayed during the rendering of the effects and properties to the actual movie footage. See Page 11 wherein ActPrx.mov is a proxy movie footage of ActHiR.mov; see Pages 22-31 for the lower-resolution counterparts/proxies of the original movie); and*

Displaying the proxy of the second frame while continuing the adding the edit feature to the first frame if it is determined that the first frame requires modification (*See Page 22, you'll set proxies to speed up screen redraw; see Page 31 wherein the lower-resolution proxies are displayed during rendering of the effects and properties to the actual movie footage stored in*

ActHiR.mov and the effects-rendered actual movie footage can be brought into view from the storage by the user wherein the user determines whether to view the effects-rendered proxy or the effects-rendered actual movie footage); and

Displaying the first frame of the time based stream of information if it is determined that the first frame does not require the modification (see Page 2 and 6 wherein the Render Settings window should be checked for the following settings: "Use No Proxies" and "Effects All" on wherein the option settings and effects are determined in order to allow the selected edit command to be rendered on the actual movie footage w/o effects. Effects correspond to edit features of the claim invention to be rendered on the actual footage movie and "Use No Proxies" correspond to displaying the original frame without rendering the proxy of the revised frame since the proper settings of "Use No Proxies" and "effect options" can be set such that the original frame is rendered without effects being applied without rendering the proxy of the original frame. Without effects being applied to the actual movie footage, the second frame is the same as the first frame. Effects correspond to edit features of the claim invention to be rendered on the actual footage movie and "Use No Proxies" provides an option for displaying the first frame.

The effects Controls window allows the effects options to be applied to the movie clips/frames and thus After-Effect teaches determining the effect control options whether a frame of the movie requires modification such as plug-ins, effects, images added to a movie; see page 1 and 35 or modifications of an original movie at lower-resolution; see also Page 31 wherein effects/coordinates can be controlled in the Effect Controls window; see Pages 9-12. If options

are deactivated in the effects Controls window, the frame of the movie is rendered without effects applied and therefore the first frame of the movie is displayed without the modification).

However, it needs to be shown whether Adobe After Effects explicitly discloses the claim limitation “during” without the claim limitation of “displaying the proxy, which is the second representation of the presentation during rendering the modifications of the first representation of the presentation. Adobe After Effects at least implicitly disclose the claim limitation because Adobe After Effect discloses at Pages 9-12 that the effects and properties applied to the proxies or the lower-resolution counterparts are applied to the actual footage stored in ActHiR.mov--- wherein the movie has been revised by adding effects to the original movie footage to create a revised movie footage. This above passage describes that the proxy is displayed during the rendering of the effects and properties to the actual movie footage stored in ActHiR.mov file. The user determines whether to view the proxy with the rendered effects or the actual movie footage with the rendered effects. During the rendering of the effects, the proxy with the rendered effects is viewed while the effects are also rendered to ActHiR.mov. When the actual movie footage with the rendered effects is toggled to be viewed in a viewing window, the proxy with the rendered effects is not viewed concurrently after effects are rendered.

In a non-limiting example, Adobe After-Effect teaches at Pages 9-12 that the effects and properties applied to the proxies or the lower-resolution counterparts are applied to the actual footage stored in ActHiR.mov wherein the effects and properties are rendered to ActHiR.mov during the displaying of the proxies or the low-resolution counterparts.

After-Effect thus teaches storing and rendering the modifications (effects and properties) in a file ActHiR.mov for the presentation of the effects/properties as proxies and for the presentation of the movie represented by the proxy sequence of frames while rendering the effects and properties on the application window with a sequence of the proxy image frames. The proxy sequence of frames representing the movie footage can be presented on the application window upon the user's selection/determination. The original movie footage can be revised by adding effects to the original movie footage to provide revised movie footage while the effects are applied to the proxy frames as well as the actual footage. Since the proxy movie footage is extracted based on the actual footage or the revised footage, the presentation of the proxy movie footage is also a presentation of the actual footage while editing is visualized on the displayed while actually being performed on the actual movie footage wherein the effects and properties are applied to the actual footage to create the revised footage. For this reason, After-Effect teaches a first representation of the presentation of a time-based stream of information---actual footage---as first represented by actual footage movie and then second represented by the proxy movie footage at a resolution and frame rate set by the user.

The ActHiR.mov represents the revised movie as modified from the original footage after rendering the effects to the original footage in a presentation of the editing effects with the sequence of the image frames. The claimed simulation of the modifications corresponds to the simulation of the effects and properties on the proxy frames on a display device at the user selected resolution and frame rate while the new effects are added to the proxy frames. Thus,



creating the proxy movie ActPrx.mov or FX\_HiR.mov includes simulating the adding of the effects to the presentation.

Since the simulation of the modifications is related to effects being added to the proxy---ActPrx.mov or FX\_HiR.mov---on a display, as opposed to adding the edit features to the original footage to create a revised movie footage---ActHiR.mov---which is resident on a storage. When the effects being added to the movie footage---ActHiR.mov---stored on a storage device, simulation occurs within the storage file, ActHiR.mov, rather than on the presentation. The simulation of modifications refers to the simulation of the proxy footage when the effects are added to the proxy frames on a display as the proxy footage is created during the rendering.

The original footage can be rendered at lower-resolution proxy on a display during the rendering. See Pages 7-11, wherein the proxy representing Photo-JPEG images are rendered at quarter resolution and a frame rate of 24 fps and the edit effects such as Cineon Converter effects are applied to produce the proxy during the rendering of a plurality of time-based streams such as the movie at 24 fps. See also Page 22, proxy is created during the rendering on a display. See also Page 30-31 wherein a variety of effects are applied to the lower-resolution proxies/counterparts of the original image frames of the movie project.

Importantly, Adobe After-Effect teaches at Pages 9-12 that the effects and properties applied to the proxies or the lower-resolution counterparts are applied to the actual footage stored in ActHiR.mov---wherein the movie has been revised by adding effects to the original footage. See Page 11 wherein ActPrx.mov is a proxy movie of ActHiR.mov; see Pages 22-31 for the lower-resolution counterparts/proxies of the original movie footage.

In a non-limiting example, Adobe After Effects teaches in Page 36 and 41 providing the plug-ins or effects to be added to a movie to produce modifications of an original movie rendered as lower-resolution image frames or proxies of the original movie. In Page 31 After Effects teaches that effects/coordinates can be controlled in the Effect Controls window. Adobe After Effects teaches rendering the project named 07Movie.mov, which represents a sequence of frames of the movie. In Page 2 and 6, After Effects teaches that the Render Settings window should be checked for the following settings: Use No Proxies and Effects All on. With After Effects, a user can also import high-resolution footage of an actor filmed against a blue screen and create a proxy or a lower-resolution copy of the original footage from the Composition window; see for example, Page 9-12. When a user use the ActHiR.mov file in a composition, After Effects will use the proxy for display. Effects and properties are applied to the actual footage when the movie is rendered as a proxy with Use No Proxies selected from the Proxy Use menu in the Render Settings dialog box in which a proxy is rendered. Even though the proxy is set to a lower-resolution of 152\*384, it behaves as if it's 2048\*1536 in the composition. After Effects teaches that the edit feature includes the settings in the Render Settings window wherein the settings can be changed by a user. Referring to the Page 2 and 6, to render a lower-resolution copy of an original movie, the references set forth in the claim invention correspond to the pixel positions/locations/coordinates/frame-time-stamps of the proxy frame(s) and/or the effects in correspondence with the original frame(s). After Effects teaches storing the modifications in response to a user edit command wherein the effects and properties applied to the proxies or the lower-resolution counterparts are also applied to the actual footage, e.g., ActHiR.mov wherein the editing effects are rendered to the actual footage.

In Page 11-12 After Effects teaches that the proxy is stored in the file folder. In Page 11, After Effects teaches that ActPrx.mov is a proxy movie of ActHiR.mov and in Pages 22-31 the proxies of the original movie are displayed as lower-resolution image frames. After Effects further teaches manipulating the time based stream of information in which the project 07Movie.mov is a time based stream of information and is rendered as a sequence of frames representing a movie. In Page 2 and 6 After Effects teaches that the Render Settings window should be checked for the following settings: Use No Proxies and "Effects All" on and the edit effects correspond to edit features of the claim invention are applied to the lower-resolution proxies at the spatial pixel coordinates while sampling the movie at a frame rate.

After Effects further teaches creating a proxy during the rendering and prior to completion of the rendering. Adobe After Effects teaches that the original movie can be rendered at lower-resolution during the rendering and the lower-resolution proxy is created/generated when it is rendered. In a non-limiting example, in Page 7-11, the After Effects teaches that the proxy representing Photo-JPEG images is rendered at quarter resolution of the original movie frames and at a frame rate of 24 fps less than the original movie's frame rate. Since the original movie is rendered at the lower-resolution and at lower frame rate as proxies, the original movie is modified when rendered. Moreover, when rendering the original movie, special effects such as Converter effects are applied to produce a revised presentation. The edit effects such as Cincon Converter effects are applied to the proxy during the rendering of the movie at 24 fps. In Page 22, proxies including FX\_Prx.mov are created during the rendering and prior to completion of the rendering wherein proxy images and/or effects are added to the movie FX\_HiR.mov and the proxy frames of FX\_HiR.mov are rendered at the user-selectable resolution with the effects

being added to the proxy frames. In Page 21-31, a variety of effects are applied to the lower-resolution proxies/counterparts of the original image frames of the movie project.

After Effects teaches the claim limitation that the creating the proxy includes simulating the edit feature on the presentation. Adobe After Effects teaches that the original movie can be rendered as a lower-resolution proxy copy during the rendering. In Page 7-11, After Effects teaches that the proxy representing Photo-JPEG images are rendered at quarter resolution and a frame rate of 24 fps and the edit effects such as Cineon Converter effects are applied to the proxy during the rendering of a plurality of time-based streams such as the movie at 24 fps. In Page 22, it is further illustrated that a proxy is created during the rendering and prior to completion of the rendering. In Page 30-31, a variety of effects are applied to the lower-resolution proxies or counterparts of the original image frames of the movie project.

After Effects teaches sending the proxy to display. In Page 22 After Effects teaches that you'll set proxies to speed up screen redraw and in Page 31 After Effects teaches that the lower-resolution proxies are displayed. After Effects teaches displaying the proxy during the rendering. In Page 22, After Effects teaches you'll set proxies to speed up screen redraw and thus proxies are displayed for screen redraw. In Page 31 After Effects teaches that the lower-resolution proxies are displayed.

Nevertheless, Phillips teaches the claim limitation of "during". Phillips discloses at col. 10, lines 5-20, column 12, lines 28-51 that the high-resolution images with special effects 332 are rendered on the film recorder while the proxy---low resolution video images 335 are displayed to editor 110 in which the artist 120 renders the special effects. Phillips also discloses at column 24, lines 10-16 that the video proxy image 335 may be a high resolution HDTV

image. Therefore, the editing may be performed while displayed on both the low-resolution proxy images and the high-resolution images.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to have combined the teaching of Phillips and Adobe After Effects because the references alone or in combination teaches the claim limitations set forth in the base claim 1. Having the combined teaching, one of the ordinary skill in the art would have been motivated to provide viewing of the edited effects as proxy while the effects are actually rendered in a high resolution complex movie thus less resources are required to display the effects rendered movie (See Adobe After Effects Pages 9-22 and Phillips col. 10-12).

Re Claims 29, 32, 35 and 38:

Adobe After Effects and Phillips further teach the claim limitation of determining whether the first frame is displayed and skipping the displaying of the proxy if the first frame is displayed (*see Page 2 and 6 wherein the Render Settings window should be checked for the following settings: "Use No Proxies" and "Effects All" on wherein the option settings and effects are determined in order to allow the selected edit command to be rendered on the actual movie footage. Effects correspond to edit features of the claim invention to be rendered on the actual footage movie and "Use No Proxies" correspond to displaying the first frame*).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (571) 272-7665. The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Jin-Cheng Wang/  
Primary Examiner, Art Unit 2628